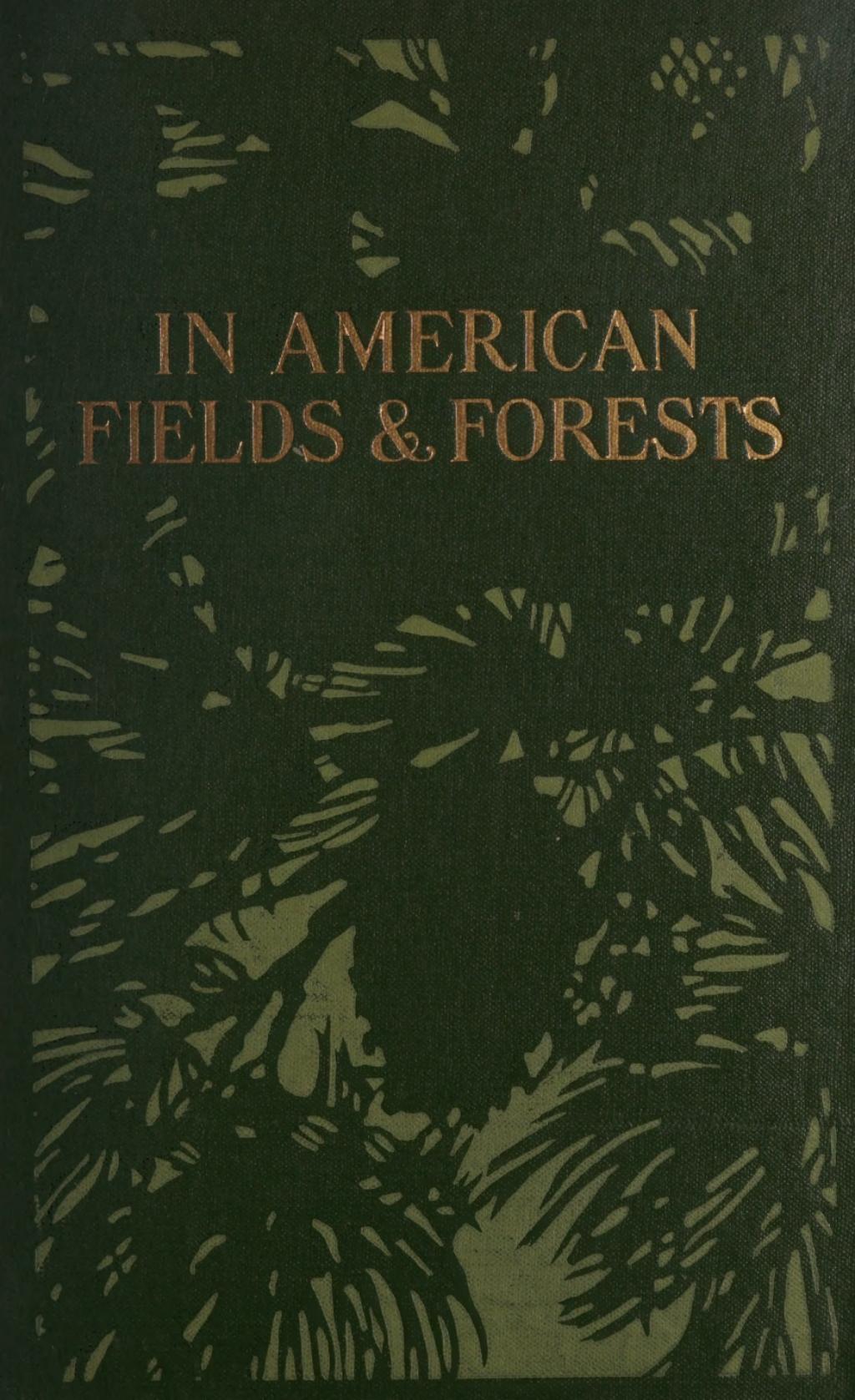


IN AMERICAN FIELDS & FORESTS

HENRY D. THOREAU, JOHN BURROUGHS
JOHN MUIR, BRADFORD TORREY
DALLAS LORE SHARP
OLIVE THORNE MILLER



IN AMERICAN FIELDS & FORESTS

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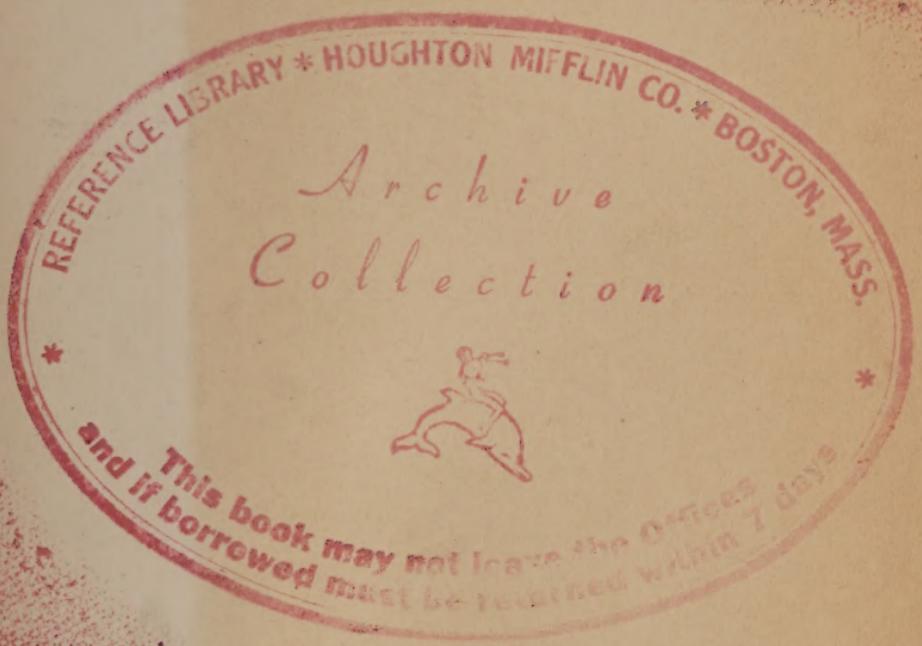
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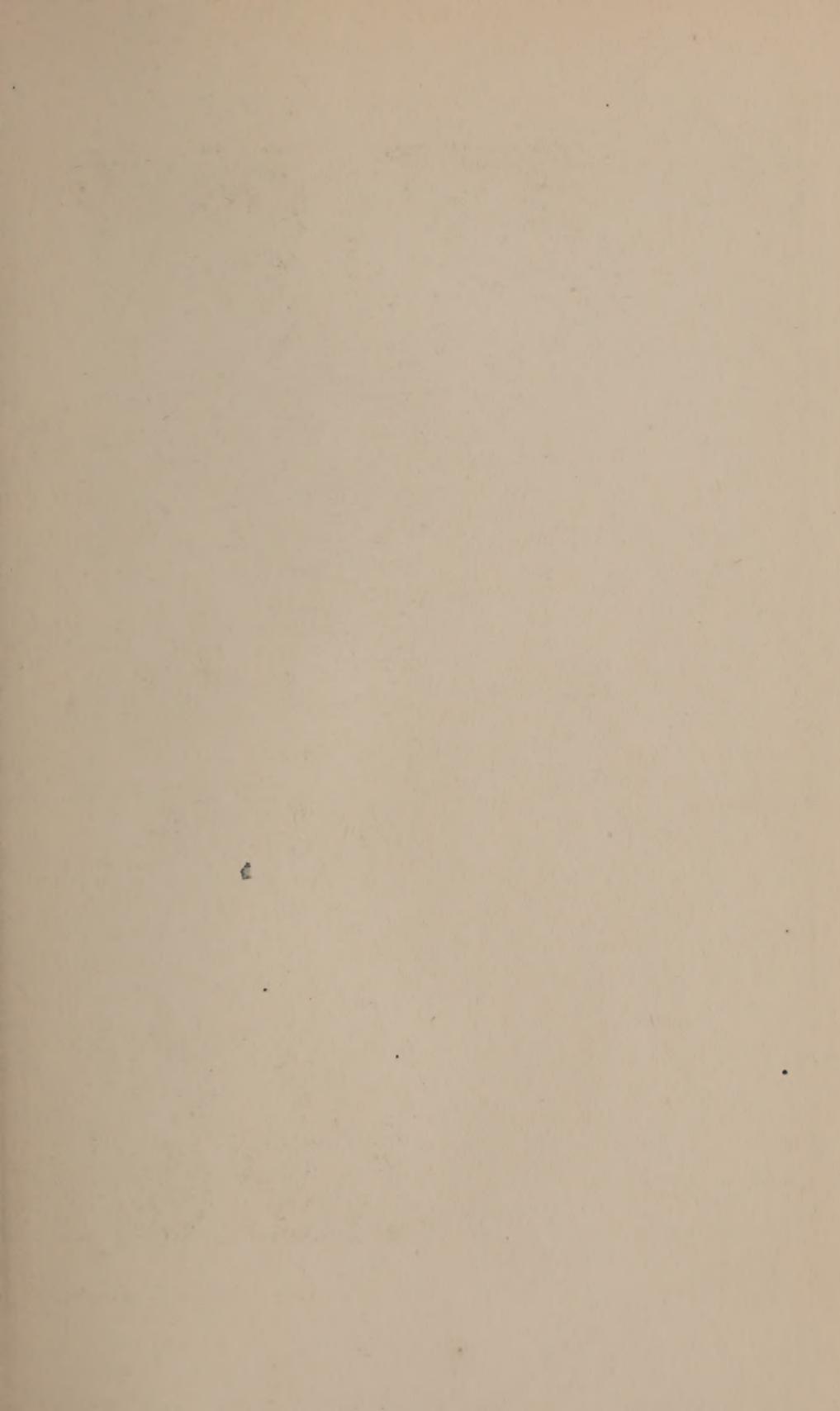
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IN AMERICAN FIELDS AND FORESTS





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HENRY D. THOREAU, JOHN BURROUGHS
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OLIVE THORNE MILLER

WITH ILLUSTRATIONS FROM PHOTOGRAPHS
BY HERBERT W. GLEASON



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PREFACE

THIS book is a collection of representative sketches by six of the most eminent American writers on nature. It has been compiled with a view to giving the greatest possible variety in subject, treatment, and locality, as well as in the point of view. The authors represented are Thoreau, the Transcendental philosopher, who, in spite of his Transcendentalism, could yet write delightfully of very concrete natural objects; Burroughs, the leading exponent of the real country life, — the life of the farm and the nearby woodlands, — the man who probably more than any other one writer is responsible for the present interest in nature-study; John Muir, geologist, arborist, gentle enthusiast, lover of the wildest of our wild American scenery, the sympathetic interpreter of the great California forests; Bradford Torrey, an across-lots rambler, ornithologist, and botanist, an observer of birds as a part of the landscape; Olive Thorne Miller, whose studies of birds have been of a more intensive character and devoted more exclusively to the bird itself; and Dallas Lore Sharp, whose acquaintance with the farm and its tenants the smaller wild animals is particularly intimate and sympathetic, and who writes from an unusual depth of sentiment and poetic feeling for nature. The subjects treated include birds, beasts, frogs, and fishes; ponds, wild apples,

the cow; forests and wild flowers; strawberries and trout-fishing; and the territory covered extends from Massachusetts to California, from the spruce-lined coast of Maine to the pine groves of North Carolina.

But the book is also something more than a collection of essays. It represents both the literary outcome and the literary inspiration of an important movement in American life, — that which has come to be known as the Nature Movement. As to the origin and significance of this movement it would be hard to find a more pertinent statement than that contained in an essay in Mr. Dallas Lore Sharp's "The Lay of the Land."

"There is no way of accounting for the movement," says Mr. Sharp, "that reflects in the least upon its reality and genuineness. It may be only the appropriation by the common people of the world that the scientists have discovered to us; it may be a popular reaction against the conventionality of the eighteenth century; or the result of our growing wealth and leisure; or a fashion set by Thoreau and Burroughs, — one or all of these may account for its origin; but nothing can explain the movement away, or hinder us from being borne by it out, at least a little way, under the open of heaven, to the great good of body and soul.

"Among the cultural influences of our times that have developed the proportions of a movement, this so-called nature movement is peculiarly American. No such general, widespread turning to the out-of-doors is seen anywhere else; no other such body of nature literature as ours; no other people so close to nature in sympathy and understanding, because there is no other

people of the same degree of culture living so close to the real, wild out-of-doors.

“The extraordinary interest in the out-of-doors is not altogether a recent acquirement. We inherited it. Nature study is an American habit. What else had the pioneers and colonists to study but the out-of-doors? and what else was half as wonderful? They came from an old urban world into this new country world, where all was strange, unnamed, and unexplored. Their chief business was observing nature, not as dull savages, nor as children born to a dead familiarity with their surroundings, but as interested men and women, with a need and a desire to know. Their coming was the real beginning of our nature movement; their observing has developed into our nature study habit.

“Our nature literature also began with them. There is scarcely a journal, a diary, or a set of letters of this early time in which we do not find that careful seeing, and often that imaginative interpretation, so characteristic of the present day. Even the modern animal romancer is represented among these early writers in John Josselyn and his delicious book, ‘New England’s Rarities Discovered.’

“It was not until the time of Emerson and Bryant and Thoreau, however, that our interest in nature became general and grew into something deeper than mere curiosity. There had been naturalists such as Audubon (he was a poet, also), but they went off into the deep woods alone. They were after new facts, new species. Emerson and Bryant and Thoreau went into the woods, too, but not for facts, nor did they go far,

and they invited us to go along. We went, because they got no farther than the back-pasture fence. It was not to the woods they took us, but to nature; not a-hunting after new species in the name of science, but for new inspirations, new estimates of life, new health for mind and spirit.

“But we were slow to get as far even as their back-pasture fence, slow to find nature in the fields and woods. It was fifty years ago that Emerson tried to take us to nature; but fifty years ago, how few there were who could make sense out of his invitation, to say nothing of accepting it! And of Thoreau’s first nature book, ‘A Week on the Concord and Merrimack Rivers,’ there were sold, in four years after publication, two hundred and twenty copies. But two hundred and twenty of such books at work in the mind of the country could leaven, in time, a big lump of it. And they did. The out-of-doors, our attitude toward it, and our literature about it have never been the same since.

“Let us learn to see and name first. The inexperienced, the unknowing, the unthinking, cannot love. One must live until tired, and think until baffled, before he can know his need of Nature; and then he will not know how to approach her unless already acquainted. To expect anything more than curiosity and animal delight in a child is foolish, and the attempt to teach him anything more at first than to know the out-of-doors is equally foolish. Poets are born, but not until they are old.

“But if one got no farther than his how-to-know book would lead him, he still would get into the fields, — the

best place for him this side of heaven, — he would get ozone for his lungs, red blood, sound sleep, and health. As a nation, we had just begun to get away from the farm and out of touch with the soil. The nature movement is sending us back in time. A new wave of physical soundness is to roll in upon us as the result, accompanied with a newness of mind and of morals.

“For, next to bodily health, the influence of the fields makes for the health of the spirit. It is easier to be good in a good body and an environment of largeness, beauty, and peace, — easier here than anywhere else to be sane, sincere, and ‘in little thyng have suffisaunce.’ If it means anything to think upon whatsoever things are good and lovely, then it means much to own a how-to-know book and to make use of it.

“This is hardly more than a beginning, however, merely satisfying an instinct of the mind. It is good if done afield, even though such classifying of the out-of-doors is only scraping an acquaintance with nature. The best good, the deep healing, come when one, no longer a stranger, breaks away from his getting and spending, from his thinking with men, and camps under the open sky, where he knows without thinking, and worships without priest or chant or prayer.”

BOSTON, *January*, 1909.

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HENRY D. THOREAU

WILD APPLES

THE HISTORY OF THE APPLE TREE

IT is remarkable how closely the history of the apple tree is connected with that of man. The geologist tells us that the order of the *Rosaceæ*, which includes the apple, also the true grasses, and the *Labiatæ*, or mints, were introduced only a short time previous to the appearance of man on the globe.

It appears that apples made a part of the food of that unknown primitive people whose traces have lately been found at the bottom of the Swiss lakes, supposed to be older than the foundation of Rome, so old that they had no metallic implements. An entire black and shriveled crab-apple has been recovered from their stores.

Tacitus says of the ancient Germans that they satisfied their hunger with wild apples (*agrestia poma*), among other things.

Niebuhr observes that “the words for a house, a field, a plow, plowing, wine, oil, milk, sheep, apples, and others relating to agriculture and the gentler way of life, agree in Latin and Greek, while the Latin words for all objects pertaining to war or the chase are utterly alien from the Greek.” Thus the apple tree may be considered a symbol of peace no less than the olive.

The apple was early so important, and generally distributed, that its name traced to its root in many lan-

guages signifies fruit in general. *Μῆλον*, in Greek, means an apple, also the fruit of other trees, also a sheep and any cattle, and finally riches in general.

The apple tree has been celebrated by the Hebrews, Greeks, Romans, and Scandinavians. Some have thought that the first human pair were tempted by its fruit. Goddesses are fabled to have contended for it, dragons were set to watch it, and heroes were employed to pluck it.

The tree is mentioned in at least three places in the Old Testament, and its fruit in two or three more. Solomon sings, “As the apple-tree among the trees of the wood, so is my beloved among the sons.” And again, “Stay me with flagons, comfort me with apples.” The noblest part of man’s noblest feature is named from this fruit, “the apple of the eye.”

The apple tree is also mentioned by Homer and Herodotus. Ulysses saw in the glorious garden of Alcinous “pears and pomegranates, and apple trees bearing beautiful fruit” (*καὶ μηλέαι ἀγλαόκαρποι*). And according to Homer, apples were among the fruits which Tantalus could not pluck, the wind ever blowing their boughs away from him. Theophrastus knew and described the apple tree as a botanist.

According to the Prose Edda, “Iduna keeps in a box the apples which the gods, when they feel old age approaching, have only to taste of to become young again. It is in this manner that they will be kept in renovated youth until Ragnarök” (or the destruction of the gods).

I learn from Loudon that “the ancient Welsh bards were rewarded for excelling in song by the token of the

apple-spray;" and "in the Highlands of Scotland the apple-tree is the badge of the clan Lamont."

The apple tree (*Pyrus malus*) belongs chiefly to the northern temperate zone. Loudon says that "it grows spontaneously in every part of Europe except the frigid zone, and throughout Western Asia, China, and Japan." We have also two or three varieties of the apple indigenous in North America. The cultivated apple tree was first introduced into this country by the earliest settlers, and is thought to do as well or better here than anywhere else. Probably some of the varieties which are now cultivated were first introduced into Britain by the Romans.

Pliny, adopting the distinction of Theophrastus, says, "Of trees there are some which are altogether wild (*sylvestres*), some more civilized (*urbaniores*)."¹ Theophrastus includes the apple among the last; and, indeed, it is in this sense the most civilized of all trees. It is as harmless as a dove, as beautiful as a rose, and as valuable as flocks and herds. It has been longer cultivated than any other, and so is more humanized; and who knows but, like the dog, it will at length be no longer traceable to its wild original? It migrates with man, like the dog and horse and cow: first, perchance, from Greece to Italy, thence to England, thence to America; and our Western emigrant is still marching steadily toward the setting sun with the seeds of the apple in his pocket, or perhaps a few young trees strapped to his load. At least a million apple trees are thus set farther westward this year than any cultivated ones grew last year. Consider how the Blossom Week,

like the Sabbath, is thus annually spreading over the prairies; for when man migrates, he carries with him not only his birds, quadrupeds, insects, vegetables, and his very sward, but his orchard also.

The leaves and tender twigs are an agreeable food to many domestic animals, as the cow, horse, sheep, and goat; and the fruit is sought after by the first, as well as by the hog. Thus there appears to have existed a natural alliance between these animals and this tree from the first. “The fruit of the crab in the forests of France” is said to be “a great resource for the wild boar.”

Not only the Indian, but many indigenous insects, birds, and quadrupeds, welcomed the apple tree to these shores. The tent caterpillar saddled her eggs on the very first twig that was formed, and it has since shared her affections with the wild cherry; and the canker-worm also in a measure abandoned the elm to feed on it. As it grew apace, the bluebird, robin, cherry-bird, kingbird, and many more came with haste and built their nests and warbled in its boughs, and so became orchard-birds, and multiplied more than ever. It was an era in the history of their race. The downy woodpecker found such a savory morsel under its bark that he perforated it in a ring quite round the tree, before he left it, — a thing which he had never done before, to my knowledge. It did not take the partridge long to find out how sweet its buds were, and every winter eve she flew, and still flies, from the wood, to pluck them, much to the farmer’s sorrow. The rabbit, too, was not slow to learn the taste of its twigs and bark;

and when the fruit was ripe, the squirrel half rolled, half carried it to his hole; and even the musquash crept up the bank from the brook at evening, and greedily devoured it, until he had worn a path in the grass there; and when it was frozen and thawed, the crow and the jay were glad to taste it occasionally. The owl crept into the first apple tree that became hollow, and fairly hooted with delight, finding it just the place for him; so, settling down into it, he has remained there ever since.

My theme being the Wild Apple, I will merely glance at some of the seasons in the annual growth of the cultivated apple, and pass on to my special province.

The flowers of the apple are perhaps the most beautiful of any tree's, so copious and so delicious to both sight and scent. The walker is frequently tempted to turn and linger near some more than usually handsome one, whose blossoms are two-thirds expanded. How superior it is in these respects to the pear, whose blossoms are neither colored nor fragrant!

By the middle of July, green apples are so large as to remind us of coddling, and of the autumn. The sward is commonly strewed with little ones which fall still-born, as it were, — Nature thus thinning them for us. The Roman writer Palladius said, “If apples are inclined to fall before their time, a stone placed in a split root will retain them.” Some such notion, still surviving, may account for some of the stones which we see placed, to be overgrown, in the forks of trees. They have a saying in Suffolk, England, —

“At Michaelmas time, or a little before,
Half an apple goes to the core.”

Early apples begin to be ripe about the first of August; but I think that none of them are so good to eat as some to smell. One is worth more to scent your handkerchief with than any perfume which they sell in the shops. The fragrance of some fruits is not to be forgotten, along with that of flowers. Some gnarly apple which I pick up in the road reminds me by its fragrance of all the wealth of Pomona, — carrying me forward to those days when they will be collected in golden and ruddy heaps in the orchards and about the cider-mills.

A week or two later, as you are going by orchards or gardens, especially in the evenings, you pass through a little region possessed by the fragrance of ripe apples, and thus enjoy them without price, and without robbing anybody.

There is thus about all natural products a certain volatile and ethereal quality which represents their highest value, and which cannot be vulgarized, or bought and sold. No mortal has ever enjoyed the perfect flavor of any fruit, and only the godlike among men begin to taste its ambrosial qualities. For nectar and ambrosia are only those fine flavors of every earthly fruit which our coarse palates fail to perceive, — just as we occupy the heaven of the gods without knowing it. When I see a particularly mean man carrying a load of fair and fragrant early apples to market, I seem to see a contest going on between him and his horse, on the one side, and the apples on the other, and, to my mind, the apples always gain it. Pliny says that apples are the heaviest of all things, and that the oxen begin to sweat at the mere sight of a load of them. Our driver

begins to lose his load the moment he tries to transport them to where they do not belong, that is, to any but the most beautiful. Though he gets out from time to time, and feels of them, and thinks they are all there, I see the stream of their evanescent and celestial qualities going to heaven from his cart, while the pulp and skin and core only are going to market. They are not apples, but pomace. Are not these still Iduna's apples, the taste of which keeps the gods forever young? and think you that they will let Loki or Thjassi carry them off to Jötunheim, while they grow wrinkled and gray? No, for Ragnarök, or the destruction of the gods, is not yet.

There is another thinning of the fruit, commonly near the end of August or in September, when the ground is strewn with windfalls; and this happens especially when high winds occur after rain. In some orchards you may see fully three quarters of the whole crop on the ground, lying in a circular form beneath the trees, yet hard and green, or, if it is a hillside, rolled far down the hill. However, it is an ill wind that blows nobody any good. All the country over, people are busy picking up the windfalls, and this will make them cheap for early apple pies.

In October, the leaves falling, the apples are more distinct on the trees. I saw one year in a neighboring town some trees fuller of fruit than I remember to have ever seen before, small yellow apples hanging over the road. The branches were gracefully drooping with their weight, like a barberry bush, so that the whole tree acquired a new character. Even the topmost branches,

instead of standing erect, spread and drooped in all directions; and there were so many poles supporting the lower ones that they looked like pictures of banyan trees. As an old English manuscript says, “The mo appelen the tree bereth the more sche boweth to the folk.”

Surely the apple is the noblest of fruits. Let the most beautiful or the swiftest have it. That should be the “going” price of apples.

Between the 5th and 20th of October I see the barrels lie under the trees. And perhaps I talk with one who is selecting some choice barrels to fulfill an order. He turns a specked one over many times before he leaves it out. If I were to tell what is passing in my mind, I should say that every one was specked which he had handled; for he rubs off all the bloom, and those fugacious ethereal qualities leave it. Cool evenings prompt the farmers to make haste, and at length I see only the ladders here and there left leaning against the trees.

It would be well, if we accepted these gifts with more joy and gratitude, and did not think it enough simply to put a fresh load of compost about the tree. Some old English customs are suggestive at least. I find them described chiefly in Brand’s “Popular Antiquities.” It appears that “on Christmas Eve the farmers and their men in Devonshire take a large bowl of cider, with a toast in it, and carrying it in state to the orchard, they salute the apple-trees with much ceremony, in order to make them bear well the next season.” This salutation consists in “throwing some of the cider about the roots of the tree, placing bits of the toast on

the branches," and then, "encircling one of the best bearing trees in the orchard, they drink the following toast three several times:—

'Here's to thee, old apple tree,
Whence thou mayst bud, and whence thou mayst blow,
And whence thou mayst bear apples enow!
Hats-full! caps-full!
Bushel, bushel, sacks-full!
And my pockets full, too! Hurra!"'

Also what was called "apple-howling" used to be practiced in various counties of England on New Year's Eve. A troop of boys visited the different orchards, and, encircling the apple trees, repeated the following words:—

"Stand fast, root! bear well, top!
Pray God send us a good howling crop:
Every twig, apples big;
Every bough, apples enow!"

"They then shout in chorus, one of the boys accompanying them on a cow's horn. During this ceremony they rap the trees with their sticks." This is called "wassailing" the trees, and is thought by some to be "a relic of the heathen sacrifice to Pomona."

Herrick sings, —

"Wassaile the trees that they may beare
You many a plum and many a peare;
For more or less fruits they will bring
As you so give them wassailing."

Our poets have as yet a better right to sing of cider than of wine; but it behooves them to sing better than English Phillips did, else they will do no credit to their Muse.

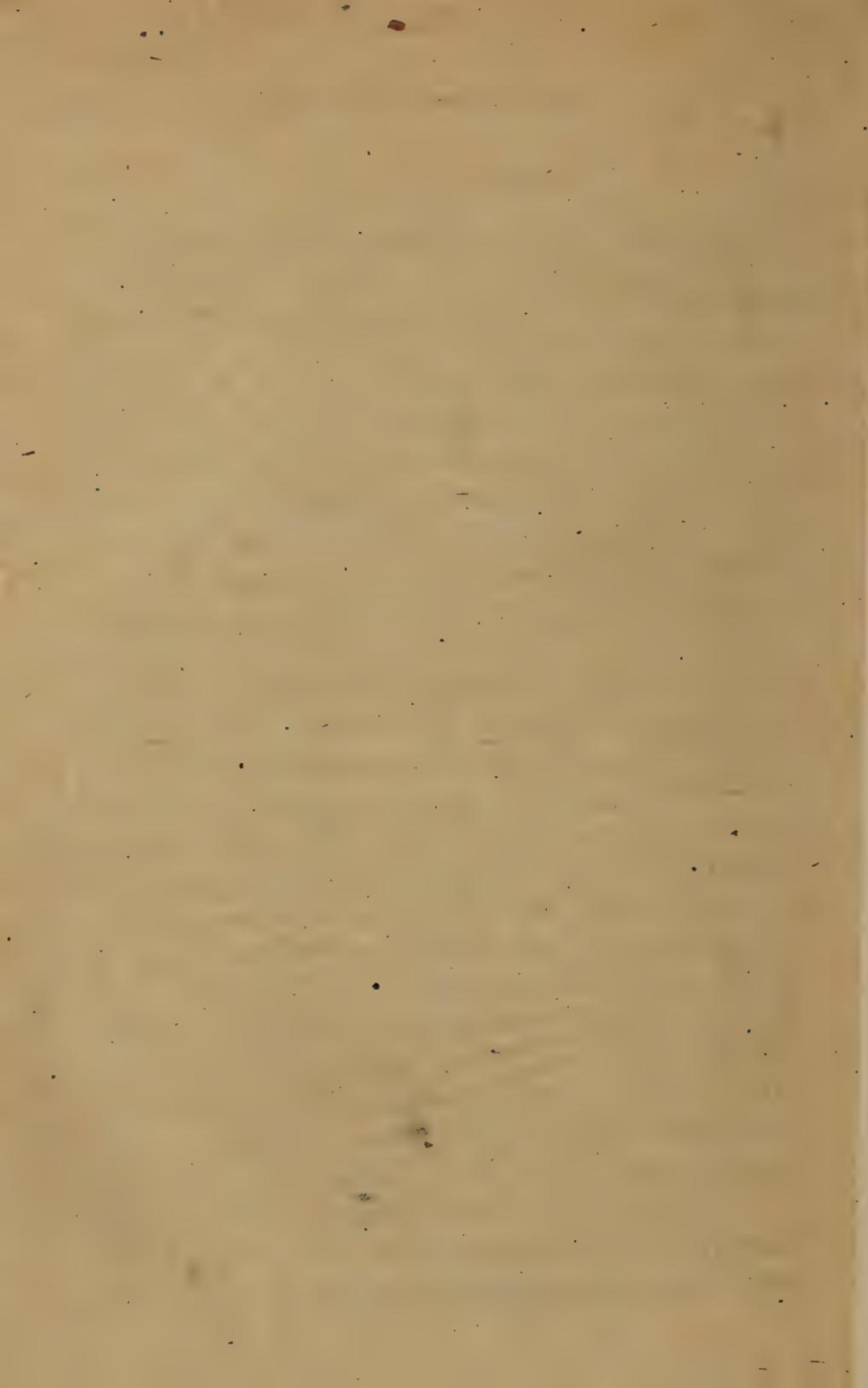
THE WILD APPLE

So much for the more civilized apple trees (*urbaniores*, as Pliny calls them). I love better to go through the old orchards of ungrafted appletrees, at what ever season of the year,— so irregularly planted: sometimes two trees standing close together; and the rows so devious that you would think that they not only had grown while the owner was sleeping, but had been set out by him in a somnambulic state. The rows of grafted fruit will never tempt me to wander amid them like these. But I now, alas, speak rather from memory than from any recent experience, such ravages have been made!

Some soils, like a rocky tract called the Easterbrooks Country in my neighborhood, are so suited to the apple, that it will grow faster in them without any care, or if only the ground is broken up once a year, than it will in many places with any amount of care. The owners of this tract allow that the soil is excellent for fruit, but they say that it is so rocky that they have not patience to plow it, and that, together with the distance, is the reason why it is not cultivated. There are, or were recently, extensive orchards there standing without order. Nay, they spring up wild and bear well there in the midst of pines, birches, maples, and oaks. I am often surprised to see rising amid these trees the rounded tops of apple trees glowing with red or yellow fruit, in harmony with the autumnal tints of the forest.

Going up the side of a cliff about the first of November, I saw a vigorous young apple tree, which, planted

A Wild Apple Tree in Bloom





by birds or cows, had shot up amid the rocks and open woods there, and had now much fruit on it, uninjured by the frosts, when all cultivated apples were gathered. It was a rank, wild growth, with many green leaves on it still, and made an impression of thorniness. The fruit was hard and green, but looked as if it would be palatable in the winter. Some was dangling on the twigs, but more half buried in the wet leaves under the tree, or rolled far down the hill amid the rocks. The owner knows nothing of it. The day was not observed when it first blossomed, nor when it first bore fruit, unless by the chickadee. There was no dancing on the green beneath it in its honor, and now there is no hand to pluck its fruit, — which is only gnawed by squirrels, as I perceive. It has done double duty, — not only borne this crop, but each twig has grown a foot into the air. And this is *such* fruit! bigger than many berries, we must admit, and carried home will be sound and palatable next spring. What care I for Iduna's apples so long as I can get these?

When I go by this shrub thus late and hardy, and see its dangling fruit, I respect the tree, and I am grateful for Nature's bounty, even though I cannot eat it. Here on this rugged and woody hillside has grown an apple tree, not planted by man, no relic of a former orchard, but a natural growth, like the pines and oaks. Most fruits which we prize and use depend entirely on our care. Corn and grain, potatoes, peaches, melons, etc., depend altogether on our planting; but the apple emulates man's independence and enterprise. It is not simply carried, as I have said, but, like him, to some extent,

it has migrated to this New World, and is even, here and there, making its way amid the aboriginal trees; just as the ox and dog and horse sometimes run wild and maintain themselves.

Even the sourest and crabbedest apple, growing in the most unfavorable position, suggests such thoughts as these, it is so noble a fruit.

THE CRAB

Nevertheless, *our* wild apple is wild only like myself, perchance, who belong not to the aboriginal race here, but have strayed into the woods from the cultivated stock. Wilder still, as I have said, there grows elsewhere in this country a native and aboriginal crab-apple, *Malus coronaria*, “whose nature has not yet been modified by cultivation.” It is found from western New York to Minnesota, and southward. Michaux says that its ordinary height “is fifteen or eighteen feet, but it is sometimes found twenty-five or thirty feet high,” and that the large ones “exactly resemble the common apple tree.” “The flowers are white mingled with rose color, and are collected in corymbs.” They are remarkable for their delicious odor. The fruit, according to him, is about an inch and a half in diameter, and is intensely acid. Yet they make fine sweetmeats and also cider of them. He concludes that “if, on being cultivated, it does not yield new and palatable varieties, it will at least be celebrated for the beauty of its flowers, and for the sweetness of its perfume.”

I never saw the crab-apple till May, 1861. I had heard of it through Michaux, but more modern bota-

nists, so far as I know, have not treated it as of any peculiar importance. Thus it was a half-fabulous tree to me. I contemplated a pilgrimage to the "Glades," a portion of Pennsylvania where it was said to grow to perfection. I thought of sending to a nursery for it, but doubted if they had it, or would distinguish it from European varieties. At last I had occasion to go to Minnesota, and on entering Michigan I began to notice from the cars a tree with handsome rose-colored flowers. At first I thought it some variety of thorn; but it was not long before the truth flashed on me, that this was my long-sought crab-apple. It was the prevailing flowering shrub or tree to be seen from the cars at that season of the year, — about the middle of May. But the cars never stopped before one, and so I was launched on the bosom of the Mississippi without having touched one, experiencing the fate of Tantalus. On arriving at St. Anthony's Falls, I was sorry to be told that I was too far north for the crab-apple. Nevertheless I succeeded in finding it about eight miles west of the Falls; touched it and smelled it, and secured a lingering corymb of flowers for my herbarium. This must have been near its northern limit.

HOW THE WILD APPLE GROWS

But though these are indigenous, like the Indians, I doubt whether they are any harder than those back-woodsmen among the apple trees, which, though descended from cultivated stocks, plant themselves in distant fields and forests, where the soil is favorable to them. I know of no trees which have more difficulties

to contend with, and which more sturdily resist their foes. These are the ones whose story we have to tell. It oftentimes reads thus:—

Near the beginning of May, we notice little thickets of apple trees just springing up in the pastures where cattle have been,—as the rocky ones of our Easterbrooks Country, or the top of Nobscot Hill, in Sudbury. One or two of these, perhaps, survive the drought and other accidents,—their very birthplace defending them against the encroaching grass and some other dangers, at first.

In two years' time 't had thus
Reached the level of the rocks,
Admired the stretching world,
Nor feared the wandering flocks.

But at this tender age
Its sufferings began:
There came a browsing ox
And cut it down a span.

This time, perhaps, the ox does not notice it amid the grass; but the next year, when it has grown more stout, he recognizes it for a fellow-emigrant from the old country, the flavor of whose leaves and twigs he well knows; and though at first he pauses to welcome it, and express his surprise, and gets for answer, "The same cause that brought you here brought me," he nevertheless browses it again, reflecting, it may be, that he has some title to it.

Thus cut down annually, it does not despair; but, putting forth two short twigs for every one cut off, it spreads out low along the ground in the hollows or

between the rocks, growing more stout and scrubby, until it forms, not a tree as yet, but a little pyramidal, stiff, twiggy mass, almost as solid and impenetrable as a rock. Some of the densest and most impenetrable clumps of bushes that I have ever seen, as well on account of the closeness and stubbornness of their branches as of their thorns, have been these wild apple scrubs. They are more like the scrubby fir and black spruce on which you stand, and sometimes walk, on the tops of mountains, where cold is the demon they contend with, than anything else. No wonder they are prompted to grow thorns at last, to defend themselves against such foes. In their thorniness, however, there is no malice, only some malic acid.

The rocky pastures of the tract I have referred to — for they maintain their ground best in a rocky field — are thickly sprinkled with these little tufts, reminding you often of some rigid gray mosses or lichens, and you see thousands of little trees just springing up between them, with the seed still attached to them.

Being regularly clipped all around each year by the cows, as a hedge with shears, they are often of a perfect conical or pyramidal form, from one to four feet high, and more or less sharp, as if trimmed by the gardener's art. In the pastures on Nobscoot Hill and its spurs, they make fine dark shadows when the sun is low. They are also an excellent covert from hawks for many small birds that roost and build in them. Whole flocks perch in them at night, and I have seen three robins' nests in one which was six feet in diameter.

No doubt many of these are already old trees, if you

reckon from the day they were planted, but infants still when you consider their development and the long life before them. I counted the annual rings of some which were just one foot high, and as wide as high, and found that they were about twelve years old, but quite sound and thrifty! They were so low that they were unnoticed by the walker, while many of their contemporaries from the nurseries were already bearing considerable crops. But what you gain in time is perhaps in this case, too, lost in power, — that is, in the vigor of the tree. This is their pyramidal state.

The cows continue to browse them thus for twenty years or more, keeping them down and compelling them to spread, until at last they are so broad that they become their own fence, when some interior shoot, which their foes cannot reach, darts upward with joy: for it has not forgotten its high calling, and bears its own peculiar fruit in triumph.

Such are the tactics by which it finally defeats its bovine foes. Now, if you have watched the progress of a particular shrub, you will see that it is no longer a simple pyramid or cone, but that out of its apex there rises a sprig or two, growing more lustily perchance than an orchard-tree, since the plant now devotes the whole of its repressed energy to these upright parts. In a short time these become a small tree, an inverted pyramid resting on the apex of the other, so that the whole has now the form of a vast hour-glass. The spreading bottom, having served its purpose, finally disappears, and the generous tree permits the now harmless cows to come in and stand in its shade, and

rub against and redden its trunk, which has grown in spite of them, and even to taste a part of its fruit, and so disperse the seed.

Thus the cows create their own shade and food; and the tree, its hour-glass being inverted, lives a second life, as it were.

It is an important question with some nowadays, whether you should trim young apple trees as high as your nose or as high as your eyes. The ox trims them up as high as he can reach, and that is about the right height, I think.

In spite of wandering kine, and other adverse circumstances, that despised shrub, valued only by small birds as a covert and shelter from hawks, has its blossom week at last, and in course of time its harvest, sincere, though small.

By the end of some October, when its leaves have fallen, I frequently see such a central sprig, whose progress I have watched, when I thought it had forgotten its destiny, as I had, bearing its first crop of small green or yellow or rosy fruit, which the cows cannot get at over the bushy and thorny hedge which surrounds it, and I make haste to taste the new and undescribed variety. We have all heard of the numerous varieties of fruit invented by Van Mons and Knight. This is the system of Van Cow, and she has invented far more and more memorable varieties than both of them.

Through what hardships it may attain to bear a sweet fruit! Though somewhat small, it may prove equal, if not superior, in flavor to that which has grown in a garden,—will perchance be all the sweeter and

more palatable for the very difficulties it has had to contend with. Who knows but this chance wild fruit, planted by a cow or a bird on some remote and rocky hillside, where it is as yet unobserved by man, may be the choicest of all its kind, and foreign potentates shall hear of it, and royal societies seek to propagate it, though the virtues of the perhaps truly crabbed owner of the soil may never be heard of, — at least, beyond the limits of his village? It was thus the Porter and the Baldwin grew.

Every wild apple shrub excites our expectation thus, somewhat as every wild child. It is, perhaps, a prince in disguise. What a lesson to man! So are human beings, referred to the highest standard, the celestial fruit which they suggest and aspire to bear, browsed on by fate; and only the most persistent and strongest genius defends itself and prevails, sends a tender scion upward at last, and drops its perfect fruit on the ungrateful earth. Poets and philosophers and statesmen thus spring up in the country pastures, and outlast the hosts of unoriginal men.

Such is always the pursuit of knowledge. The celestial fruits, the golden apples of the Hesperides, are ever guarded by a hundred-headed dragon which never sleeps, so that it is an Herculean labor to pluck them.

This is one, and the most remarkable way in which the wild apple is propagated; but commonly it springs up at wide intervals in woods and swamp, and by the sides of roads, as the soil may suit it, and grows with comparative rapidity. Those which grow in dense woods are very tall and slender. I frequently pluck

from these trees a perfectly mild and tamed fruit. As Palladius says, "*Et injussu consternitur ubere mali:*" And the ground is strewn with the fruit of an unbidden apple tree.

It is an old notion that, if these wild trees do not bear a valuable fruit of their own, they are the best stocks by which to transmit to posterity the most highly prized qualities of others. However, I am not in search of stocks, but the wild fruit itself, whose fierce gust has suffered no "inteneration." It is not my

"highest plot
To plant the Bergamot."

THE FRUIT, AND ITS FLAVOR

The time for wild apples is the last of October and the first of November. They then get to be palatable, for they ripen late, and they are still perhaps as beautiful as ever. I make a great account of these fruits, which the farmers do not think it worth the while to gather, — wild flavors of the Muse, vivacious and inspiriting. The farmer thinks that he has better in his barrels, but he is mistaken, unless he has a walker's appetite and imagination, neither of which can he have.

Such as grow quite wild, and are left out till the first of November, I presume that the owner does not mean to gather. They belong to children as wild as themselves, — to certain active boys that I know, — to the wild-eyed woman of the fields, to whom nothing comes amiss, who gleans after all the world, and, moreover, to us walkers. We have met with them, and they are ours. These rights, long enough insisted upon, have come

to be an institution in some old countries, where they have learned how to live. I hear that “the custom of grippling, which may be called apple-gleaning, is, or was formerly, practiced in Herefordshire. It consists in leaving a few apples, which are called the gripples, on every tree, after the general gathering, for the boys, who go with climbing-poles and bags to collect them.”

As for those I speak of, I pluck them as a wild fruit, native to this quarter of the earth, — fruit of old trees that have been dying ever since I was a boy and are not yet dead, frequented only by the woodpecker and the squirrel, deserted now by the owner, who has not faith enough to look under their boughs. From the appearance of the tree-top, at a little distance, you would expect nothing but lichens to drop from it, but your faith is rewarded by finding the ground strewn with spirited fruit, — some of it, perhaps, collected at squirrel-holes, with the marks of their teeth by which they carried them, — some containing a cricket or two silently feeding within, and some, especially in damp days, a shell-less snail. The very sticks and stones lodged in the tree-top might have convinced you of the savoriness of the fruit which has been so eagerly sought after in past years.

I have seen no account of these among the “Fruits and Fruit-Trees of America,” though they are more memorable to my taste than the grafted kinds; more racy and wild American flavors do they possess when October and November, when December and January, and perhaps February and March even, have assuaged them somewhat. An old farmer in my neighborhood,

who always selects the right word, says that “they have a kind of bow-arrow tang.”

Apples for grafting appear to have been selected commonly, not so much for their spirited flavor, as for their mildness, their size, and bearing qualities, — not so much for their beauty, as for their fairness and soundness. Indeed, I have no faith in the selected lists of pomological gentlemen. Their “Favorites” and “None-suches” and “Seek-no-farthers,” when I have fruited them, commonly turn out very tame and forgettable. They are eaten with comparatively little zest, and have no real *tang* nor *smack* to them.

What if some of these wildings are acrid and puckery, genuine *verjuice*, do they not still belong to the *Pomaceæ*, which are uniformly innocent and kind to our race? I still begrudge them to the cider-mill. Perhaps they are not fairly ripe yet.

No wonder that these small and high-colored apples are thought to make the best cider. Loudon quotes from the “Herefordshire Report,” that “apples of a small size are always, if equal in quality, to be preferred to those of a larger size, in order that the rind and kernel may bear the greatest proportion to the pulp, which affords the weakest and most watery juice.” And he says that, “to prove this, Dr. Symonds, of Hereford, about the year 1800, made one hogshead of cider entirely from the rinds and cores of apples, and another from the pulp only, when the first was found of extraordinary strength and flavor, while the latter was sweet and insipid.”

Evelyn says that the “Red-strake” was the favorite cider-apple in his day; and he quotes one Dr. Newburg

as saying, "In Jersey 't is a general observation, as I hear, that the more of red any apple has in its rind, the more proper it is for this use. Pale-faced apples they exclude as much as may be from their cider-vat." This opinion still prevails.

All apples are good in November. Those which the farmer leaves out as unsalable and unpalatable to those who frequent the markets are choicest fruit to the walker. But it is remarkable that the wild apple, which I praise as so spirited and racy when eaten in the fields or woods, being brought into the house has frequently a harsh and crabbed taste. The Saunterer's Apple not even the saunterer can eat in the house. The palate rejects it there, as it does haws and acorns, and demands a tamed one; for there you miss the November air, which is the sauce it is to be eaten with. Accordingly, when Tityrus, seeing the lengthening shadows, invites Melibœus to go home and pass the night with him, he promises him *mild* apples and soft chestnuts, — *mitia poma, castaneæ molles*. I frequently pluck wild apples of so rich and spicy a flavor that I wonder all orchardists do not get a scion from that tree, and I fail not to bring home my pockets full. But perchance, when I take one out of my desk and taste it in my chamber, I find it unexpectedly crude, — sour enough to set a squirrel's teeth on edge and make a jay scream.

These apples have hung in the wind and frost and rain till they have absorbed the qualities of the weather or season, and thus are highly *seasoned*, and they *pierce* and *sting* and *permeate* us with their spirit. They must be eaten in *season*, accordingly, — that is, out-of-doors.

To appreciate the wild and sharp flavors of these October fruits, it is necessary that you be breathing the sharp October or November air. The outdoor air and exercise which the walker gets give a different tone to his palate, and he craves a fruit which the sedentary would call harsh and crabbed. They must be eaten in the fields, when your system is all aglow with exercise, when the frosty weather nips your fingers, the wind rattles the bare boughs or rustles the few remaining leaves, and the jay is heard screaming around. What is sour in the house a bracing walk makes sweet. Some of these apples might be labeled, "To be eaten in the wind."

Of course no flavors are thrown away; they are intended for the taste that is up to them. Some apples have two distinct flavors, and perhaps one half of them must be eaten in the house, the other outdoors. One Peter Whitney wrote from Northborough in 1782, for the Proceedings of the Boston Academy, describing an apple tree in that town "producing fruit of opposite qualities, part of the same apple being frequently sour and the other sweet;" also some all sour, and others all sweet, and this diversity on all parts of the tree.

There is a wild apple on Nawshawtuct Hill in my town which has to me a peculiarly pleasant bitter tang, not perceived till it is three-quarters tasted. It remains on the tongue. As you eat it, it smells exactly like a squash-bug. It is a sort of triumph to eat and relish it.

I hear that the fruit of a kind of plum tree in Provence is "called *Prunes sibarelles*, because it is impossible to whistle after having eaten them, from their sourness."

But perhaps they were only eaten in the house and in summer, and if tried out-of-doors in a stinging atmosphere, who knows but you could whistle an octave higher and clearer?

In the fields only are the sours and bitters of Nature appreciated; just as the woodchopper eats his meal in a sunny glade, in the middle of a winter day, with content, basks in a sunny ray there, and dreams of summer in a degree of cold which, experienced in a chamber, would make a student miserable. They who are at work abroad are not cold, but rather it is they who sit shivering in houses. As with temperatures, so with flavors; as with cold and heat, so with sour and sweet. This natural raciness, the sours and bitters which the diseased palate refuses, are the true condiments.

Let your condiments be in the condition of your senses. To appreciate the flavor of these wild apples requires vigorous and healthy senses, *papillæ* firm and erect on the tongue and palate, not easily flattened and tamed.

From my experience with wild apples, I can understand that there may be reason for a savage's preferring many kinds of food which the civilized man rejects. The former has the palate of an outdoor man. It takes a savage or wild taste to appreciate a wild fruit.

What a healthy out-of-door appetite it takes to relish the apple of life, the apple of the world, then!

“Nor is it every apple I desire,
Nor that which pleases every palate best;
'T is not the lasting Deuxan I require,
Nor yet the red-cheeked Greening I request,

Nor that which first besrewed the name of wife,
Nor that whose beauty caused the golden strife:
No, no! bring me an apple from the tree of life."

So there is one *thought* for the field, another for the house. I would have my thoughts, like wild apples, to be food for walkers, and will not warrant them to be palatable if tasted in the house.

THEIR BEAUTY

Almost all wild apples are handsome. They cannot be too gnarly and crabbed and rusty to look at. The gnarliest will have some redeeming traits even to the eye. You will discover some evening redness dashed or sprinkled on some protuberance or in some cavity. It is rare that the summer lets an apple go without streaking or spotting it on some part of its sphere. It will have some red stains, commemorating the mornings and evenings it has witnessed; some dark and rusty blotches, in memory of the clouds and foggy, mildewy days that have passed over it; and a spacious field of green reflecting the general face of nature, — green even as the fields; or a yellow ground, which implies a milder flavor, — yellow as the harvest, or russet as the hills.

Apples, these I mean, unspeakably fair, — apples not of Discord, but of Concord! Yet not so rare but that the homeliest may have a share. Painted by the frosts, some a uniform clear bright yellow, or red, or crimson, as if their spheres had regularly revolved, and enjoyed the influence of the sun on all sides alike, — some with the faintest pink blush imaginable, — some brindled with deep red streaks like a cow, or with hundreds of fine

blood-red rays running regularly from the stem-dimple to the blossom end, like meridional lines, on a straw-colored ground, — some touched with a greenish rust, like a fine lichen, here and there, with crimson blotches or eyes more or less confluent and fiery when wet, — and others gnarly, and freckled or peppered all over on the stem side with fine crimson spots on a white ground, as if accidentally sprinkled from the brush of Him who paints the autumn leaves. Others, again, are sometimes red inside, perfused with a beautiful blush, fairy food, too beautiful to eat, — apple of the Hesperides, apple of the evening sky! But like shells and pebbles on the sea-shore, they must be seen as they sparkle amid the withering leaves in some dell in the woods, in the autumnal air, or as they lie in the wet grass, and not when they have wilted and faded in the house.

THE NAMING OF THEM

It would be a pleasant pastime to find suitable names for the hundred varieties which go to a single heap at the cider-mill. Would it not tax a man's invention, — no one to be named after a man, and all in the *lingua vernacula*? Who shall stand godfather at the christening of the wild apples? It would exhaust the Latin and Greek languages, if they were used, and make the *lingua vernacula* flag. We should have to call in the sunrise and the sunset, the rainbow and the autumn woods and the wild-flowers, and the woodpecker and the purple finch and the squirrel and the jay and the butterfly, the November traveler and the truant boy, to our aid.

In 1836 there were in the garden of the London Horticultural Society more than fourteen hundred distinct sorts. But here are species which they have not in their catalogue, not to mention the varieties which our crab might yield to cultivation.

Let us enumerate a few of these. I find myself compelled, after all, to give the Latin names of some for the benefit of those who live where English is not spoken, — for they are likely to have a world-wide reputation.

There is, first of all, the Wood Apple (*Malus sylvatica*); the Blue-Jay Apple; the Apple which grows in Dells in the Woods (*sylvestrivallis*), also in Hollows in Pastures (*campestrivallis*); the Apple that grows in an old Cellar-Hole (*Malus cellaris*); the Meadow Apple; the Partridge Apple; the Truant's Apple (*cessatoris*), which no boy will ever go by without knocking off some, however *late* it may be; the Saunterer's Apple, — you must lose yourself before you can find the way to that; the Beauty of the Air (*decus aëris*); December-Eating; the Frozen-Thawed (*gelato-soluta*), good only in that state; the Concord Apple, possibly the same with the *Musketaquidensis*; the Assabet Apple; the Brindled Apple; Wine of New England; the Chickaree Apple; the Green Apple (*Malus viridis*), — this has many synonyms: in an imperfect state, it is the *choleramorbifera aut dysenterifera, puerulis dilectissima*; the Apple which Atalanta stopped to pick up; the Hedge Apple (*Malus sepium*); the Slug Apple (*limacea*); the Railroad Apple, which perhaps came from a core thrown out of the cars; the Apple whose Fruit we tasted in our Youth; our Particular Apple, not to

be found in any catalogue; *pedestrium solatium*; also the Apple where hangs the Forgotten Scythe; Iduna's Apples, and the Apples which Loki found in the Wood; and a great many more I have on my list, too numerous to mention, — all of them good. As Bodæus exclaims, referring to the cultivated kinds, and adapting Virgil to his case, so I, adapting Bodæus, —

“Not if I had a hundred tongues, a hundred mouths,
An iron voice, could I describe all the forms
And reckon up all the names of these *wild apples*.”

THE LAST GLEANING

By the middle of November the wild apples have lost some of their brilliancy, and have chiefly fallen. A great part are decayed on the ground, and the sound ones are more palatable than before. The note of the chickadee sounds now more distinct, as you wander amid the old trees, and the autumnal dandelion is half closed and tearful. But still, if you are a skillful gleaner, you may get many a pocketful even of grafted fruit, long after apples are supposed to be gone out-of-doors. I know a Blue Pearmain tree, growing within the edge of a swamp, almost as good as wild. You would not suppose that there was any fruit left there, on the first survey, but you must look according to system. Those which lie exposed are quite brown and rotten now, or perchance a few still show one blooming cheek here and there amid the wet leaves. Nevertheless, with experienced eyes, I explore amid the bare alders and the huckleberry bushes and the withered sedge, and in the crevices of the rocks, which are full of leaves, and pry

under the fallen and decaying ferns, which, with apple and alder leaves, thickly strew the ground. For I know that they lie concealed, fallen into hollows long since and covered up by the leaves of the tree itself,— a proper kind of packing. From these lurking-places, anywhere within the circumference of the tree, I draw forth the fruit, all wet and glossy, maybe nibbled by rabbits and hollowed out by crickets, and perhaps with a leaf or two cemented to it (as Curzon an old manuscript from a monastery's mouldy cellar), but still with a rich bloom on it, and at least as ripe and well-kept, if not better than those in barrels, more crisp and lively than they. If these resources fail to yield anything, I have learned to look between the bases of the suckers which spring thickly from some horizontal limb, for now and then one lodges there, or in the very midst of an alder-clump, where they are covered by leaves, safe from cows which may have smelled them out. If I am sharp-set, for I do not refuse the Blue Pearmain, I fill my pockets on each side; and as I retrace my steps in the frosty eve, being perhaps four or five miles from home, I eat one first from this side, and then from that, to keep my balance.

I learn from Topsell's Gesner, whose authority appears to be Albertus, that the following is the way in which the hedgehog collects and carries home his apples. He says, — “His meat is apples, worms, or grapes: when he findeth apples or grapes on the earth, he rolleth himself upon them, until he have filled all his prickles, and then carrieth them home to his den, never bearing above one in his mouth; and if it fortune that one of

them fall off by the way, he likewise shaketh off all the residue, and walloweth upon them afresh, until they be all settled upon his back again. So, forth he goeth, making a noise like a cart-wheel; and if he have any young ones in his nest, they pull off his load wherewithal he is loaded, eating thereof what they please, and laying up the residue for the time to come."

THE "FROZEN-THAWED" APPLE

Toward the end of November, though some of the sound ones are yet more mellow and perhaps more edible, they have generally, like the leaves, lost their beauty, and are beginning to freeze. It is finger-cold, and prudent farmers get in their barreled apples, and bring you the apples and cider which they have engaged; for it is time to put them into the cellar. Perhaps a few on the ground show their red cheeks above the early snow, and occasionally some even preserve their color and soundness under the snow throughout the winter. But generally at the beginning of the winter they freeze hard, and soon, though undecayed, acquire the color of a baked apple.

Before the end of December, generally, they experience their first thawing. Those which a month ago were sour, crabbed, and quite unpalatable to the civilized taste, such at least as were frozen while sound, let a warmer sun come to thaw them,—for they are extremely sensitive to its rays,—are found to be filled with a rich, sweet cider, better than any bottled cider that I know of, and with which I am better acquainted than with wine. All apples are good in this state, and your jaws

are the cider-press. Others, which have more substance, are a sweet and luscious food, — in my opinion of more worth than the pineapples which are imported from the West Indies. Those which lately even I tasted only to repent of it, — for I am semicivilized, — which the farmer willingly left on the tree, I am now glad to find have the property of hanging on like the leaves of the young oaks. It is a way to keep cider sweet without boiling. Let the frost come to freeze them first, solid as stones, and then the rain or a warm winter day to thaw them, and they will seem to have borrowed a flavor from heaven through the medium of the air in which they hang. Or perchance you find, when you get home, that those which rattled in your pocket have thawed, and the ice is turned to cider. But after the third or fourth freezing and thawing they will not be found so good.

What are the imported half-ripe fruits of the torrid south, to this fruit matured by the cold of the frigid north? These are those crabbed apples with which I cheated my companion, and kept a smooth face that I might tempt him to eat. Now we both greedily fill our pockets with them, — bending to drink the cup and save our lappets from the overflowing juice, — and grow more social with their wine. Was there one that hung so high and sheltered by the tangled branches that our sticks could not dislodge it?

It is a fruit never carried to market, that I am aware of, — quite distinct from the apple of the markets, as from dried apple and cider, — and it is not every winter that produces it in perfection.

The era of the Wild Apple will soon be past. It is a fruit which will probably become extinct in New England. You may still wander through old orchards of native fruit of great extent, which for the most part went to the cider-mill, now all gone to decay. I have heard of an orchard in a distant town, on the side of a hill, where the apples rolled down and lay four feet deep against a wall on the lower side, and this the owner cut down for fear they should be made into cider. Since the temperance reform and the general introduction of grafted fruit, no native apple trees, such as I see everywhere in deserted pastures, and where the woods have grown up around them, are set out. I fear that he who walks over these fields a century hence will not know the pleasure of knocking off wild apples. Ah, poor man, there are many pleasures which he will not know! Notwithstanding the prevalence of the Baldwin and the Porter, I doubt if so extensive orchards are set out to-day in my town as there were a century ago, when those vast straggling cider-orchards were planted, when men both ate and drank apples, when the pomace-heap was the only nursery, and trees cost nothing but the trouble of setting them out. Men could afford then to stick a tree by every wall-side and let it take its chance. I see nobody planting trees to-day in such out of the way places, along the lonely roads and lanes, and at the bottom of dells in the wood. Now that they have grafted trees, and pay a price for them, they collect them into a plat by their houses, and fence them in, — and the end of it all will be that we shall be compelled to look for our apples in a barrel.

This is "The word of the Lord that came to Joel the son of Pethuel.

"Hear this, ye old men, and give ear, all ye inhabitants of the land! Hath this been in your days, or even in the days of your fathers? . . .

"That which the palmerworm hath left hath the locust eaten; and that which the locust hath left hath the cankerworm eaten; and that which the cankerworm hath left hath the caterpillar eaten.

"Awake, ye drunkards, and weep; and howl, all ye drinkers of wine, because of the new wine; for it is cut off from your mouth.

"For a nation is come up upon my land, strong, and without number, whose teeth are the teeth of a lion, and he hath the cheek teeth of a great lion.

"He hath laid my vine waste, and barked my fig tree: he hath made it clean bare, and cast it away; the branches thereof are made white. . . .

"Be ye ashamed, O ye husbandmen; howl, O ye vinedressers. . . .

"The vine is dried up, and the fig tree languisheth; the pomegranate tree, the palm tree also, and the apple tree, even all the trees of the field, are withered: because joy is withered away from the sons of men."

SOUNDS

BUT while we are confined to books, though the most select and classic, and read only particular written languages, which are themselves but dialects and provincial, we are in danger of forgetting the language which all things and events speak without metaphor, which alone is copious and standard. Much is published, but little printed. The rays which stream through the shutter will be no longer remembered when the shutter is wholly removed. No method nor discipline can supersede the necessity of being forever on the alert. What is a course of history or philosophy, or poetry, no matter how well selected, or the best society, or the most admirable routine of life, compared with the discipline of looking always at what is to be seen? Will you be a reader, a student merely, or a seer? Read your fate, see what is before you, and walk on into futurity.

I did not read books the first summer; I hoed beans. Nay, I often did better than this. There were times when I could not afford to sacrifice the bloom of the present moment to any work, whether of the head or hands. I love a broad margin to my life. Sometimes, in a summer morning, having taken my accustomed bath, I sat in my sunny doorway from sunrise till noon, rapt in a reverie, amidst the pines and hickories and

sumachs, in undisturbed solitude and stillness, while the birds sang around or flitted noiseless through the house, until by the sun falling in at my west window, or the noise of some traveller's wagon on the distant highway, I was reminded of the lapse of time. I grew in those seasons like corn in the night, and they were far better than any work of the hands would have been. They were not time subtracted from my life, but so much over and above my usual allowance. I realized what the Orientals mean by contemplation and the forsaking of works. For the most part, I minded not how the hours went. The day advanced as if to light some work of mine; it was morning, and lo, now it is evening, and nothing memorable is accomplished. Instead of singing like the birds, I silently smiled at my incessant good fortune. As the sparrow had its trill, sitting on the hickory before my door, so had I my chuckle or suppressed warble which he might hear out of my nest. My days were not days of the week, bearing the stamp of any heathen deity, nor were they minced into hours and fretted by the ticking of a clock; for I lived like the Puri Indians, of whom it is said that "for yesterday, to-day, and to-morrow they have only one word, and they express the variety of meaning by pointing backward for yesterday, forward for to-morrow, and overhead for the passing day." This was sheer idleness to my fellow-townsman, no doubt; but if the birds and flowers had tried me by their standard, I should not have been found wanting. A man must find his occasions in himself, it is true. The natural day is very calm, and will hardly reprove his indolence.

I had this advantage, at least, in my mode of life, over those who were obliged to look abroad for amusement, to society and the theatre, that my life itself was become my amusement and never ceased to be novel. It was a drama of many scenes and without an end. If we were always, indeed, getting our living, and regulating our lives according to the last and best mode we had learned, we should never be troubled with ennui. Follow your genius closely enough, and it will not fail to show you a fresh prospect every hour. Housework was a pleasant pastime. When my floor was dirty, I rose early, and, setting all my furniture out of doors on the grass, bed and bedstead making but one budget, dashed water on the floor, and sprinkled white sand from the pond on it, and then with a broom scrubbed it clean and white; and by the time the villagers had broken their fast the morning sun had dried my house sufficiently to allow me to move in again, and my meditations were almost uninterrupted. It was pleasant to see my whole household effects out on the grass, making a little pile like a gypsy's pack, and my three-legged table, from which I did not remove the books and pen and ink, standing amid the pines and hickories. They seemed glad to get out themselves, and as if unwilling to be brought in. I was sometimes tempted to stretch an awning over them and take my seat there. It was worth the while to see the sun shine on these things, and hear the free wind blow on them; so much more interesting most familiar objects look out of doors than in the house. A bird sits on the next bough, life-everlasting grows under the table, and blackberry vines run round

its legs; pine cones, chestnut burs, and strawberry leaves are strewn about. It looked as if this was the way these forms came to be transferred to our furniture, to tables, chairs, and bedsteads, — because they once stood in their midst.

My house was on the side of a hill, immediately on the edge of the larger wood, in the midst of a young forest of pitch pines and hickories, and half a dozen rods from the pond, to which a narrow footpath led down the hill. In my front yard grew the strawberry, blackberry, and life-everlasting, johnswort and goldenrod, shrub oaks and sand cherry, blueberry and ground-nut. Near the end of May, the sand cherry (*Cerasus pumila*) adorned the sides of the path with its delicate flowers arranged in umbels cylindrically about its short stems, which last, in the fall, weighed down with good-sized and handsome cherries, fell over in wreaths like rays on every side. I tasted them out of compliment to Nature, though they were scarcely palatable. The sumach (*Rhus glabra*) grew luxuriantly about the house, pushing up through the embankment which I had made, and growing five or six feet the first season. Its broad pinnate tropical leaf was pleasant though strange to look on. The large buds, suddenly pushing out late in the spring from dry sticks which had seemed to be dead, developed themselves as by magic into graceful green and tender boughs, an inch in diameter; and sometimes, as I sat at my window, so heedlessly did they grow and tax their weak joints, I heard a fresh and tender bough suddenly fall like a fan to the ground, when there was not a breath of air stirring, broken off

by its own weight. In August, the large masses of berries, which, when in flower, had attracted many wild bees, gradually assumed their bright velvety crimson hue, and by their weight again bent down and broke the tender limbs.

As I sit at my window this summer afternoon, hawks are circling about my clearing; the tantivy of wild pigeons, flying by twos and threes athwart my view, or perching restless on the white pine boughs behind my house, gives a voice to the air; a fish hawk dimples the glassy surface of the pond and brings up a fish; a mink steals out of the marsh before my door and seizes a frog by the shore; the sedge is bending under the weight of the reed-birds flitting hither and thither; and for the last half-hour I have heard the rattle of railroad cars, now dying away and then reviving like the beat of a partridge, conveying travellers from Boston to the country. For I did not live so out of the world as that boy who, as I hear, was put out to a farmer in the east part of the town, but ere long ran away and came home again, quite down at the heel and homesick. He had never seen such a dull and out-of-the-way place; the folks were all gone off; why, you could n't even hear the whistle! I doubt if there is such a place in Massachusetts now: —

“In truth, our village has become a butt
For one of those fleet railroad shafts, and o'er
Our peaceful plain its soothing sound is — Concord.”

The Fitchburg Railroad touches the pond about a hundred rods south of where I dwell. I usually go to the

village along its causeway, and am, as it were, related to society by this link. The men on the freight trains, who go over the whole length of the road, bow to me as to an old acquaintance, they pass me so often, and apparently they take me for an employee; and so I am. I too would fain be a track-repairer somewhere in the orbit of the earth.

The whistle of the locomotive penetrates my woods summer and winter, sounding like the scream of a hawk sailing over some farmer's yard, informing me that many restless city merchants are arriving within the circle of the town, or adventurous country traders from the other side. As they come under one horizon, they shout their warning to get off the track to the other, heard sometimes through the circles of two towns. Here come your groceries, country; your rations, countrymen! Nor is there any man so independent on his farm that he can say them nay. And here's your pay for them! screams the countryman's whistle; timber like long battering-rams going twenty miles an hour against the city's walls, and chairs enough to seat all the weary and heavy-laden that dwell within them. With such huge and lumbering civility the country hands a chair to the city. All the Indian huckleberry hills are stripped, all the cranberry meadows are raked into the city. Up comes the cotton, down goes the woven cloth; up comes the silk, down goes the woollen; up come the books, but down goes the wit that writes them.

When I meet the engine with its train of cars moving off with planetary motion,—or, rather, like a comet, for the beholder knows not if with that velocity and with that

direction it will ever revisit this system, since its orbit does not look like a returning curve, — with its steam cloud like a banner streaming behind in golden and silver wreaths, like many a downy cloud which I have seen, high in the heavens, unfolding its masses to the light, — as if this travelling demigod, this cloud-compeller, would ere long take the sunset sky for the livery of his train; when I hear the iron horse make the hills echo with his snort like thunder, shaking the earth with his feet, and breathing fire and smoke from his nostrils (what kind of winged horse or fiery dragon they will put into the new Mythology I don't know), it seems as if the earth had got a race now worthy to inhabit it. If all were as it seems, and men made the elements their servants for noble ends! If the cloud that hangs over the engine were the perspiration of heroic deeds, or as beneficent as that which floats over the farmer's fields, then the elements and Nature herself would cheerfully accompany men on their errands and be their escort.

I watch the passage of the morning cars with the same feeling that I do the rising of the sun, which is hardly more regular. Their train of clouds stretching far behind and rising higher and higher, going to heaven while the cars are going to Boston, conceals the sun for a minute and casts my distant field into the shade, a celestial train beside which the petty train of cars which hugs the earth is but the barb of the spear. The stabler of the iron horse was up early this winter morning by the light of the stars amid the mountains, to fodder and harness his steed. Fire, too, was awakened thus early to put the vital heat in him and get him off. If the enter-

prise were as innocent as it is early! If the snow lies deep, they strap on his snowshoes, and, with the giant plow, plow a furrow from the mountains to the seaboard, in which the cars, like a following drill-barrow, sprinkle all the restless men and floating merchandise in the country for seed. All day the fire-steed flies over the country, stopping only that his master may rest, and I am awakened by his tramp and defiant snort at midnight, when in some remote glen in the woods he fronts the elements incased in ice and snow; and he will reach his stall only with the morning star, to start once more on his travels without rest or slumber. Or perchance, at evening, I hear him in his stable blowing off the superfluous energy of the day, that he may calm his nerves and cool his liver and brain for a few hours of iron slumber. If the enterprise were as heroic and commanding as it is protracted and unwearied!

Far through unfrequented woods on the confines of towns, where once only the hunter penetrated by day, in the darkest night dart these bright saloons without the knowledge of their inhabitants; this moment stopping at some brilliant station-house in town or city, where a social crowd is gathered, the next in the Dismal Swamp, scaring the owl and fox. The startings and arrivals of the cars are now the epochs in the village day. They go and come with such regularity and precision, and their whistle can be heard so far, that the farmers set their clocks by them, and thus one well-conducted institution regulates a whole country. Have not men improved somewhat in punctuality since the railroad was invented? Do they not talk and think faster in the

depot than they did in the stage-office? There is something electrifying in the atmosphere of the former place. I have been astonished at the miracles it has wrought; that some of my neighbors, who, I should have prophesied, once for all, would never get to Boston by so prompt a conveyance, are on hand when the bell rings. To do things "railroad fashion" is now the byword; and it is worth the while to be warned so often and so sincerely by any power to get off its track. There is no stopping to read the riot act, no firing over the heads of the mob, in this case. We have constructed a fate, an *Atropos*, that never turns aside. (Let that be the name of your engine.) Men are advertised that at a certain hour and minute these bolts will be shot toward particular points of the compass; yet it interferes with no man's business, and the children go to school on the other track. We live the steadier for it. We are all educated thus to be sons of Tell. The air is full of invisible bolts. Every path but your own is the path of fate. Keep on your own track, then.

What recommends commerce to me is its enterprise and bravery. It does not clasp its hands and pray to Jupiter. I see these men every day go about their business with more or less courage and content, doing more even than they suspect, and perchance better employed than they could have consciously devised. I am less affected by their heroism who stood up for half an hour in the front line at Buena Vista, than by the steady and cheerful valor of the men who inhabit the snow-plow for their winter quarters; who have not merely the three-o'-clock-in-the-morning courage, which Bonaparte

thought was the rarest, but whose courage does not go to rest so early, who go to sleep only when the storm sleeps or the sinews of their iron steed are frozen. On this morning of the Great Snow, perchance, which is still raging and chilling men's blood, I hear the muffled tone of their engine bell from out the fog bank of their chilled breath, which announces that the cars *are coming*, without long delay, notwithstanding the veto of a New England northeast snow-storm, and I behold the plowmen covered with snow and rime, their heads peering above the mould-board which is turning down other than daisies and the nests of field mice, like bowlders of the Sierra Nevada, that occupy an outside place in the universe.

Commerce is unexpectedly confident and serene, alert, adventurous, and unwearied. It is very natural in its methods withal, far more so than many fantastic enterprises and sentimental experiments, and hence its singular success. I am refreshed and expanded when the freight train rattles past me, and I smell the stores which go dispensing their odors all the way from Long Wharf to Lake Champlain, reminding me of foreign parts, of coral reefs, and Indian oceans, and tropical climes, and the extent of the globe. I feel more like a citizen of the world at the sight of the palm-leaf which will cover so many flaxen New England heads the next summer, the Manilla hemp and cocoanut husks, the old junk, gunny bags, scrap iron, and rusty nails. This carload of torn sails is more legible and interesting now than if they should be wrought into paper and printed books. Who can write so graphically the history of the storms they

have weathered as these rents have done? They are proof-sheets which need no correction. Here goes lumber from the Maine woods, which did not go out to sea in the last freshet, risen four dollars on the thousand because of what did go out or was split up; pine, spruce, cedar,—first, second, third and fourth qualities, so lately all of one quality, to wave over the bear, and moose, and caribou. Next rolls Thomaston lime, a prime lot, which will get far among the hills before it gets slacked. These rags in bales, of all hues and qualities, the lowest condition to which cotton and linen descend, the final result of dress,—of patterns which are now no longer cried up, unless it be in Milwaukee, as those splendid articles, English, French, or American prints, ginghams, muslins, etc., gathered from all quarters both of fashion and poverty, going to become paper of one color or a few shades only, on which, forsooth, will be written tales of real life, high and low, and founded on fact! This closed car smells of salt fish, the strong New England and commercial scent, reminding me of the Grand Banks and the fisheries. Who has not seen a salt fish, thoroughly cured for this world, so that nothing can spoil it, and putting the perseverance of the saints to the blush? with which you may sweep or pave the streets, and split your kindlings, and the teamster shelter himself and his lading against sun, wind, and rain behind it,—and the trader, as a Concord trader once did, hang it up by his door for a sign when he commences business, until at last his oldest customer cannot tell surely whether it be animal, vegetable, or mineral, and yet it shall be as pure as a snowflake, and if it be

put into a pot and boiled, will come out an excellent dun fish for a Saturday's dinner. Next Spanish hides, with the tails still preserving their twist and the angle of elevation they had when the oxen that wore them were careering over the pampas of the Spanish main,— a type of all obstinacy, and evincing how almost hopeless and incurable are all constitutional vices. I confess, that practically speaking, when I have learned a man's real disposition, I have no hopes of changing it for the better or worse in this state of existence. As the Orientals say, "A cur's tail may be warmed, and pressed, and bound round with ligatures, and after a twelve years' labor bestowed upon it, still it will retain its natural form." The only effectual cure for such inveteracies as these tails exhibit is to make glue of them, which I believe is what is usually done with them, and then they will stay put and stick. Here is a hogshead of molasses or of brandy directed to John Smith, Cuttingsville, Vermont, some trader among the Green Mountains, who imports for the farmers near his clearing, and now perchance stands over his bulkhead and thinks of the last arrivals on the coast, how they may affect the price for him, telling his customers this moment, as he has told them twenty times before this morning, that he expects some by the next train of prime quality. It is advertised in the Cuttingsville Times.

While these things go up other things come down. Warned by the whizzing sound, I look up from my book and see some tall pine, hewn on far northern hills, which has winged its way over the Green Mountains and the Connecticut, shot like an arrow through the township

within ten minutes, and scarce another eye beholds it; going

“to be the mast
Of some great ammiral.”

And hark! here comes the cattle-train bearing the cattle of a thousand hills, sheepricks, stables, and cow-yards in the air, drovers with their sticks, and shepherd boys in the midst of their flocks, all but the mountain pastures, whirled along like leaves blown from the mountains by the September gales. The air is filled with the bleating of calves and sheep, and the hustling of oxen, as if a pastoral valley were going by. When the old bell-wether at the head rattles his bell, the mountains do indeed skip like rams and the little hills like lambs. A carload of drovers, too, in the midst, on a level with their droves now, their vocation gone, but still clinging to their useless sticks as their badge of office. But their dogs, where are they? It is a stampede to them; they are quite thrown out; they have lost the scent. Methinks I hear them barking behind the Peterboro' Hills, or panting up the western slope of the Green Mountains. They will not be in at the death. Their vocation, too, is gone. Their fidelity and sagacity are below par now. They will slink back to their kennels in disgrace, or perchance run wild and strike a league with the wolf and the fox. So is your pastoral life whirled past and away. But the bell rings, and I must get off the track and let the cars go by;—

What's the railroad to me?
I never go to see
Where it ends.

It fills a few hollows,
And makes banks for the swallows,
It sets the sand a-blown,
And the blackberries a-growing,

but I cross it like a cart-path in the woods. I will not have my eyes put out and my ears spoiled by its smoke and steam and hissing.

Now that the cars are gone by and all the restless world with them, and the fishes in the pond no longer feel their rumbling, I am more alone than ever. For the rest of the long afternoon, perhaps, my meditations are interrupted only by the faint rattle of a carriage or team along the distant highway.

Sometimes, on Sundays, I heard the bells, the Lincoln, Acton, Bedford, or Concord bell, when the wind was favorable, a faint, sweet, and, as it were, natural melody, worth importing into the wilderness. At a sufficient distance over the woods this sound acquires a certain vibratory hum, as if the pine needles in the horizon were the strings of a harp which it swept. All sound heard at the greatest possible distance produces one and the same effect, a vibration of the universal lyre, just as the intervening atmosphere makes a distant ridge of earth interesting to our eyes by the azure tint it imparts to it. There came to me in this case a melody which the air had strained, and which had conversed with every leaf and needle of the wood, that portion of the sound which the elements had taken up and modulated and echoed from vale to vale. The echo is, to some extent, an original sound, and therein is the magic and

charm of it. It is not merely a repetition of what was worth repeating in the bell, but partly the voice of the wood; the same trivial words and notes sung by a wood-nymph.

At evening, the distant lowing of some cow in the horizon beyond the woods sounded sweet and melodious, and at first I would mistake it for the voices of certain minstrels by whom I was sometimes serenaded, who might be straying over hill and dale; but soon I was not unpleasantly disappointed when it was prolonged into the cheap and natural music of the cow. I do not mean to be satirical, but to express my appreciation of those youths' singing, when I state that I perceived clearly that it was akin to the music of the cow, and they were at length one articulation of Nature.

Regularly at half-past seven, in one part of the summer, after the evening train had gone by, the whip-poor-wills chanted their vespers for half an hour, sitting on a stump by my door, or upon the ridge-pole of the house. They would begin to sing almost with as much precision as a clock, within five minutes of a particular time, referred to the setting of the sun, every evening. I had a rare opportunity to become acquainted with their habits. Sometimes I heard four or five at once in different parts of the wood, by accident one a bar behind another, and so near me that I distinguished not only the cluck after each note, but often that singular buzzing sound like a fly in a spider's web, only proportionally louder. Sometimes one would circle round and round me in the woods a few feet distant as if tethered by a string, when probably I was near its eggs. They sang at intervals throughout the

night, and were again as musical as ever just before and about dawn.

When other birds are still, the screech owls take up the strain, like mourning women their ancient u-lu-lu. Their dismal scream is truly Ben Jonsonian. Wise midnight hags! It is no honest and blunt tu-whit tu-who of the poets, but, without jesting, a most solemn graveyard ditty, the mutual consolations of suicide lovers remembering the pangs and the delights of supernal love in the infernal groves. Yet I love to hear their wailing, their doleful responses, trilled along the woodside; reminding me sometimes of music and singing birds; as if it were the dark and tearful side of music, the regrets and sighs that would fain be sung. They are the spirits, the low spirits and melancholy forebodings, of fallen souls that once in human shape night-walked the earth and did the deeds of darkness, now expiating their sins with their wailing hymns or threnodies in the scenery of their transgressions. They give me a new sense of the variety and capacity of that nature which is our common dwelling. *Oh-o-o-o-o that I never had been bor-r-r-r-n!* sighs one on this side of the pond, and circles with the restlessness of despair to some new perch on the gray oaks. Then — *that I never had been bor-r-r-r-n!* echoes another on the farther side with tremulous sincerity, and — *bor-r-r-r-n!* comes faintly from far in the Lincoln woods.

I was also serenaded by a hooting owl. Near at hand you could fancy it the most melancholy sound in Nature, as if she meant by this to stereotype and make permanent in her choir the dying moans of a human being, — some poor weak relic of mortality who has left hope be-

hind, and howls like an animal, yet with human sobs, on entering the dark valley, made more awful by a certain gurgling melodiousness, — I find myself beginning with the letters *gl* when I try to imitate it, — expressive of a mind which has reached the gelatinous, mildewy stage in the mortification of all healthy and courageous thought. It reminded me of ghouls and idiots and insane howlings. But now one answers from far woods in a strain made really melodious by distance, — *Hoo hoo hoo, hoorer hoo*; and indeed for the most part it suggested only pleasing associations, whether heard by day or night, summer or winter.

I rejoice that there are owls. Let them do the idiotic and maniacal hooting for men. It is a sound admirably suited to swamps and twilight woods which no day illustrates, suggesting a vast and undeveloped nature which men have not recognized. They represent the stark twilight and unsatisfied thoughts which all have. All day the sun has shone on the surface of some savage swamp, where the single spruce stands hung with usnea lichens, and small hawks circulate above, and the chickadee lisps amid the evergreens, and the partridge and rabbit skulk beneath; but now a more dismal and fitting day dawns, and a different race of creatures awakes to express the meaning of Nature there.

Late in the evening I heard the distant rumbling of wagons over bridges, — a sound heard farther than almost any other at night, — the baying of dogs, and sometimes again the lowing of some disconsolate cow in a distant barn-yard. In the meanwhile all the shore rang with the trump of bullfrogs, the sturdy spirits of

ancient wine-bibbers and wassailers, still unrepentant, trying to sing a catch in their Stygian lake, — if the Walden nymphs will pardon the comparison, for though there are almost no weeds, there are frogs there, — who would fain keep up the hilarious rules of their old festal tables, though their voices have waxed hoarse and solemnly grave, mocking at mirth, and the wine has lost its flavor, and become only liquor to distend their paunches, and sweet intoxication never comes to drown the memory of the past, but mere saturation and waterloggedness and distention. The most aldermanic, with his chin upon a heart-leaf, which serves for a napkin to his drooling chaps, under this northern shore quaffs a deep draught of the once scorned water, and passes round the cup with the ejaculation *tr-r-r-oonk*, *tr-r-r-oonk*, *tr-r-r-oonk!* and straightway comes over the water from some distant cove the same password repeated, where the next in seniority and girth has gulped down to his mark; and when this observance has made the circuit of the shores, then ejaculates the master of ceremonies, with satisfaction, *tr-r-r-oonk!* and each in his turn repeats the same down to the least distended, leakiest, and flaggiest paunched, that there be no mistake; and then the bowl goes round again and again, until the sun disperses the morning mist, and only the patriarch is not under the pond, but vainly bellowing *troonk* from time to time, and pausing for a reply.

I am not sure that I ever heard the sound of cock-crowing from my clearing, and I thought that it might be worth the while to keep a cockerel for his music merely, as a singing bird. The note of this once wild Indian

pheasant is certainly the most remarkable of any bird's, and if they could be naturalized without being domesticated, it would soon become the most famous sound in our woods, surpassing the clangor of the goose and the hooting of the owl; and then imagine the cackling of the hens to fill the pauses when their lords' clarions rested! No wonder that man added this bird to his tame stock, — to say nothing of the eggs and drumsticks. To walk in a winter morning in a wood where these birds abounded, their native woods, and hear the wild cockerels crow on the trees, clear and shrill for miles over the resounding earth, drowning the feebler notes of other birds, — think of it! It would put nations on the alert. Who would not be early to rise, and rise earlier and earlier every successive day of his life, till he became unspeakably healthy, wealthy, and wise? This foreign bird's note is celebrated by the poets of all countries along with the notes of their native songsters. All climates agree with brave Chanticleer. He is more indigenous even than the natives. His health is ever good, his lungs are sound, his spirits never flag. Even the sailor on the Atlantic and Pacific is awakened by his voice; but its shrill sound never roused me from my slumbers. I kept neither dog, cat, cow, pig, nor hens, so that you would have said there was a deficiency of domestic sounds; neither the churn, nor the spinning-wheel, nor even the singing of the kettle, nor the hissing of the urn, nor children crying, to comfort one. An old-fashioned man would have lost his senses or died of ennui before this. Not even rats in the wall, for they were starved out, or rather were never baited in, — only

squirrels on the roof and under the floor, a whip-poor-will on the ridge-pole, a blue jay screaming beneath the window, a hare or woodchuck under the house, a screech owl or a cat owl behind it, a flock of wild geese or a laughing loon on the pond, and a fox to bark in the night. Not even a lark or an oriole, those mild plantation birds, ever visited my clearing. No cockerels to crow nor hens to cackle in the yard. No yard! but unfenced nature reaching up to your very sills. A young forest growing up under your windows, and wild sumachs and blackberry vines breaking through into your cellar; sturdy pitch pines rubbing and creaking against the shingles for want of room, their roots reaching quite under the house. Instead of a scuttle or a blind blown off in the gale, — a pine tree snapped off or torn up by the roots behind your house for fuel. Instead of no path to the front-yard gate in the Great Snow, — no gate — no front-yard, — and no path to the civilized world.

THE PONDS

SOMETIMES, having had a surfeit of human society and gossip, and worn out all my village friends, I ram-bled still farther westward than I habitually dwell, into yet more unfrequented parts of the town, “to fresh woods and pastures new,” or, while the sun was setting, made my supper of huckleberries and blueberries on Fair Haven Hill, and laid up a store for several days. The fruits do not yield their true flavor to the purchaser of them, nor to him who raises them for the market. There is but one way to obtain it, yet few take that way. If you would know the flavor of huckleberries, ask the cow-boy or the partridge. It is a vulgar error to suppose that you have tasted huckleberries who never plucked them. A huckleberry never reaches Boston; they have not been known there since they grew on her three hills. The ambrosial and essential part of the fruit is lost with the bloom which is rubbed off in the market cart, and they become mere provender. As long as Eternal Jus-tice reigns, not one innocent huckleberry can be trans-ported thither from the country’s hills.

Occasionally, after my hoeing was done for the day, I joined some impatient companion who had been fish-ing on the pond since morning, as silent and motionless as a duck or a floating leaf, and, after practising various

kinds of philosophy, had concluded commonly, by the time I arrived, that he belonged to the ancient sect of Coenobites. There was one older man, an excellent fisher and skilled in all kinds of woodcraft, who was pleased to look upon my house as a building erected for the convenience of fishermen; and I was equally pleased when he sat in my doorway to arrange his lines. Once in a while we sat together on the pond, he at one end of the boat, and I at the other; but not many words passed between us, for he had grown deaf in his later years, but he occasionally hummed a psalm, which harmonized well enough with my philosophy. Our intercourse was thus altogether one of unbroken harmony, far more pleasing to remember than if it had been carried on by speech. When, as was commonly the case, I had none to commune with, I used to raise the echoes by striking with a paddle on the side of my boat, filling the surrounding woods with circling and dilating sound, stirring them up as the keeper of a menagerie his wild beasts, until I elicited a growl from every wooded vale and hillside.

In warm evenings I frequently sat in the boat playing the flute, and saw the perch, which I seemed to have charmed, hovering around me, and the moon travelling over the ribbed bottom, which was strewed with the wrecks of the forest. Formerly I had come to this pond adventurously, from time to time, in dark summer nights, with a companion, and, making a fire close to the water's edge, which we thought attracted the fishes, we caught pouts with a bunch of worms strung on a thread, and when we had done, far in the night, threw the burn-

ing brands high into the air like skyrockets, which, coming down into the pond, were quenched with a loud hissing, and we were suddenly groping in total darkness. Through this, whistling a tune, we took our way to the haunts of men again. But now I had made my home by the shore.

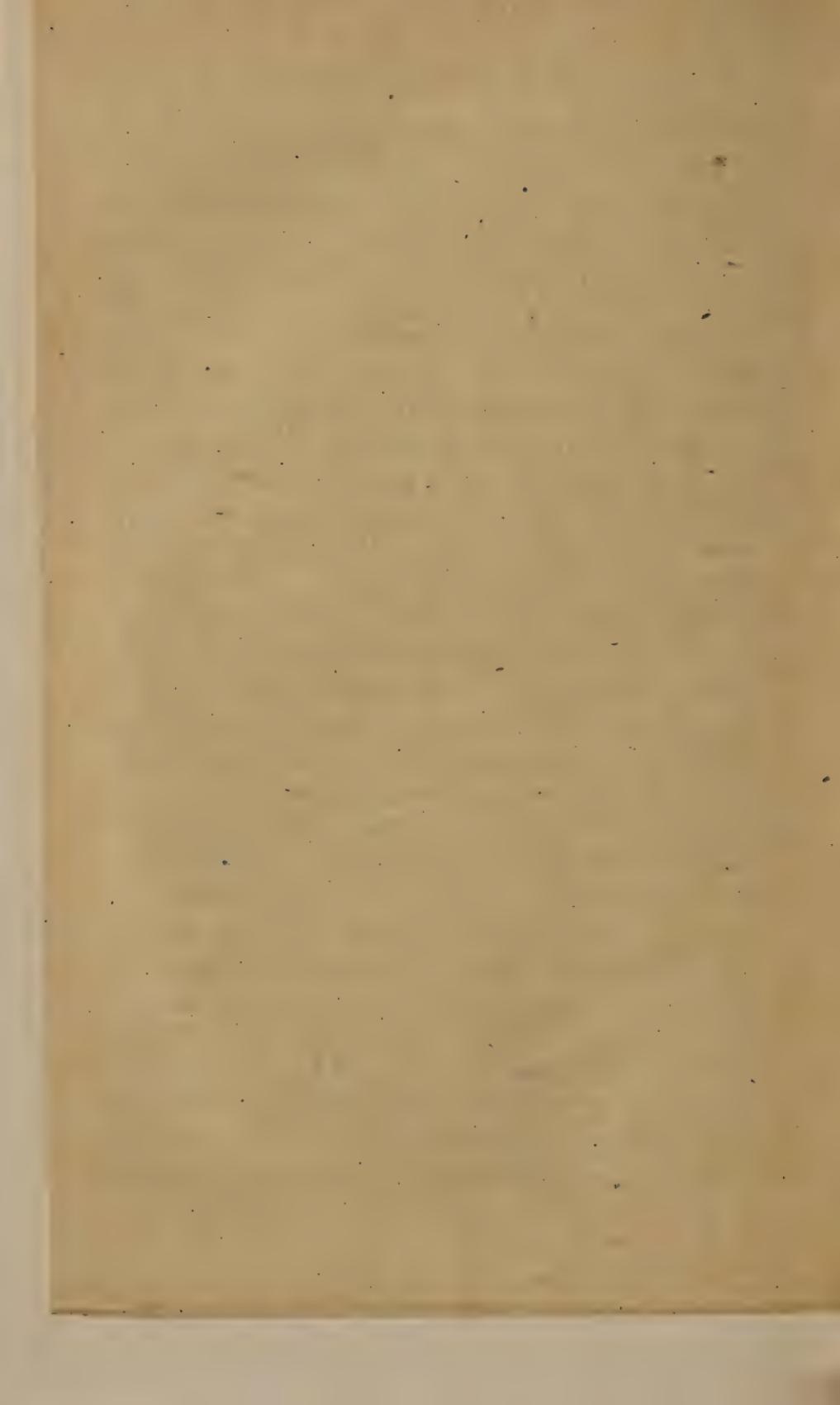
Sometimes, after staying in a village parlor till the family had all retired, I have returned to the woods, and, partly with a view to the next day's dinner spent the hours of midnight fishing from a boat by moonlight, serenaded by owls and foxes, and hearing, from time to time, the creaking note of some unknown bird close at hand. These experiences were very memorable and valuable to me, — anchored in forty feet of water, and twenty or thirty rods from the shore, surrounded sometimes by thousands of small perch and shiners, dimpling the surface with their tails in the moonlight, and communicating by a long flaxen line with mysterious nocturnal fishes which had their dwelling forty feet below, or sometimes dragging sixty feet of line about the pond as I drifted in the gentle night breeze, now and then feeling a slight vibration along it, indicative of some life prowling about its extremity, of dull uncertain blundering purpose there, and slow to make up its mind. At length you slowly raise, pulling hand over hand, some horned pout squeaking and squirming to the upper air. It was very queer, especially in dark nights, when your thoughts had wandered to vast and cosmogonical themes in other spheres, to feel this faint jerk, which came to interrupt your dreams and link you to Nature again. It seemed as if I might next cast

my line upward into the air, as well as downward into this element, which was scarcely more dense. Thus I caught two fishes as it were with one hook.

The scenery of Walden is on a humble scale, and, though very beautiful, does not approach to grandeur, nor can it much concern one who has not long frequented it or lived by its shore; yet this pond is so remarkable for its depth and purity as to merit a particular description. It is a clear and deep green well, half a mile long and a mile and three quarters in circumference, and contains about sixty-one and a half acres; a perennial spring in the midst of pine and oak woods, without any visible inlet or outlet except by the clouds and evaporation. The surrounding hills rise abruptly from the water to the height of forty to eighty feet, though on the southeast and east they attain to about one hundred and one hundred and fifty feet respectively, within a quarter and a third of a mile. They are exclusively woodland. All our Concord waters have two colors at least; one when viewed at a distance, and another, more proper, close at hand. The first depends more on the light, and follows the sky. In clear weather, in summer, they appear blue at a little distance, especially if agitated, and at a great distance all appear alike. In stormy weather they are sometimes of a dark slate-color. The sea, however, is said to be blue one day and green another without any perceptible change in the atmosphere. I have seen our river, when, the landscape being covered with snow, both water and ice were almost as green as grass. Some consider blue "to be the color of pure

water, whether liquid or solid." But, looking directly down into our waters from a boat, they are seen to be of very different colors. Walden is blue at one time and green at another, even from the same point of view. Lying between the earth and the heavens, it partakes of the color of both. Viewed from a hilltop it reflects the color of the sky; but near at hand it is of a yellowish tint next the shore where you can see the sand, then a light green, which gradually deepens to a uniform dark green in the body of the pond. In some lights, viewed even from a hilltop, it is of a vivid green next the shore. Some have referred this to the reflection of the verdure; but it is equally green there against the railroad sand-bank, and in the spring, before the leaves are expanded, and it may be simply the result of the prevailing blue mixed with the yellow of the sand. Such is the color of its iris. This is that portion, also, where in the spring, the ice being warmed by the heat of the sun reflected from the bottom, and also transmitted through the earth, melts first and forms a narrow canal about the still frozen middle. Like the rest of our waters, when much agitated, in clear weather, so that the surface of the waves may reflect the sky at the right angle, or because there is more light mixed with it, it appears at a little distance of a darker blue than the sky itself; and at such a time, being on its surface, and looking with divided vision, so as to see the reflection, I have discerned a matchless and indescribable light blue, such as watered or changeable silks and sword blades suggest, more cerulean than the sky itself, alternating with the original dark green on the opposite sides of the waves, which

Walden Pond





last appeared but muddy in comparison. It is a vitreous greenish blue, as I remember it, like those patches of the winter sky seen through cloud vistas in the west before sundown. Yet a single glass of its water held up to the light is as colorless as an equal quantity of air. It is well known that a large plate of glass will have a green tint, owing, as the makers say, to its "body," but a small piece of the same will be colorless. How large a body of Walden water would be required to reflect a green tint I have never proved. The water of our river is black or a very dark brown to one looking directly down on it, and, like that of most ponds, imparts to the body of one bathing in it a yellowish tinge; but this water is of such crystalline purity that the body of the bather appears of an alabaster whiteness, still more unnatural, which, as the limbs are magnified and distorted withal, produces a monstrous effect, making fit studies for a Michael Angelo.

The water is so transparent that the bottom can easily be discerned at the depth of twenty-five or thirty feet. Paddling over it, you may see, many feet beneath the surface, the schools of perch and shiners, perhaps only an inch long, yet the former easily distinguished by their transverse bars, and you think that they must be ascetic fish that find a subsistence there. Once, in the winter, many years ago, when I had been cutting holes through the ice in order to catch pickerel, as I stepped ashore I tossed my axe back on to the ice, but, as if some evil genius had directed it, it slid four or five rods directly into one of the holes, where the water was twenty-five feet deep. Out of curiosity, I lay down on

the ice and looked through the hole, until I saw the axe a little on one side, standing on its head, with its helve erect and gently swaying to and fro with the pulse of the pond; and there it might have stood erect and swaying till in the course of time the handle rotted off, if I had not disturbed it. Making another hole directly over it with an ice chisel which I had, and cutting down the longest birch which I could find in the neighborhood with my knife, I made a slip-noose, which I attached to its end, and, letting it down carefully, passed it over the knob of the handle, and drew it by a line along the birch, and so pulled the axe out again.

The shore is composed of a belt of smooth rounded white stones like paving-stones, excepting one or two short sand beaches, and is so steep that in many places a single leap will carry you into water over your head; and were it not for its remarkable transparency, that would be the last to be seen of its bottom till it rose on the opposite side. Some think it is bottomless. It is nowhere muddy, and a casual observer would say that there were no weeds at all in it; and of noticeable plants, except in the little meadows recently overflowed, which do not properly belong to it, a closer scrutiny does not detect a flag nor a bulrush, nor even a lily, yellow or white, but only a few small heart-leaves and potamogetons, and perhaps a water-target or two; all which however a bather might not perceive; and these plants are clean and bright like the element they grow in. The stones extend a rod or two into the water, and then the bottom is pure sand, except in the deepest parts, where there is usually a little sediment, probably from the de-

cay of the leaves which have been wafted on to it so many successive falls, and a bright green weed is brought up on anchors even in midwinter.

We have one other pond just like this, White Pond, in Nine Acre Corner, about two and a half miles westerly; but, though I am acquainted with most of the ponds within a dozen miles of this centre, I do not know a third of this pure and well-like character. Successive nations perchance have drank at, admired, and fathomed it, and passed away, and still its water is green and pellucid as ever. Not an intermitting spring! Perhaps on that spring morning when Adam and Eve were driven out of Eden Walden Pond was already in existence, and even then breaking up in a gentle spring rain accompanied with mist and a southerly wind, and covered with myriads of ducks and geese, which had not heard of the fall, when still such pure lakes sufficed them. Even then it had commenced to rise and fall, and had clarified its waters and colored them of the hue they now wear, and obtained a patent of Heaven to be the only Walden Pond in the world and distiller of celestial dews. Who knows in how many unremembered nations' literatures this has been the Castalian Fountain? or what nymphs presided over it in the Golden Age? It is a gem of the first water which Concord wears in her coronet.

Yet perchance the first who came to this well have left some trace of their footsteps. I have been surprised to detect encircling the pond, even where a thick wood has just been cut down on the shore, a narrow shelf-like path in the steep hillside, alternately rising and falling,

approaching and receding from the water's edge, as old probably as the race of man here, worn by the feet of aboriginal hunters, and still from time to time unwittingly trodden by the present occupants of the land. This is particularly distinct to one standing on the middle of the pond in winter, just after a light snow has fallen, appearing as a clear undulating white line, unobscured by weeds and twigs, and very obvious a quarter of a mile off in many places where in summer it is hardly distinguishable close at hand. The snow reprints it, as it were, in clear white type alto-relievo. The ornamented grounds of villas which will one day be built here may still preserve some trace of this.

The pond rises and falls, but whether regularly or not, and within what period, nobody knows, though, as usual, many pretend to know. It is commonly higher in the winter and lower in the summer, though not corresponding to the general wet and dryness. I can remember when it was a foot or two lower, and also when it was at least five feet higher, than when I lived by it. There is a narrow sand-bar running into it, with very deep water on one side, on which I helped boil a kettle of chowder, some six rods from the main shore, about the year 1824, which it has not been possible to do for twenty-five years; and, on the other hand, my friends used to listen with incredulity when I told them, that a few years later I was accustomed to fish from a boat in a secluded cove in the woods, fifteen rods from the only shore they knew, which place was long since converted into a meadow. But the pond has risen steadily for two years, and now, in the summer of '52, is just

five feet higher than when I lived there, or as high as it was thirty years ago, and fishing goes on again in the meadow. This makes a difference of level, at the outside, of six or seven feet; and yet the water shed by the surrounding hills is insignificant in amount, and this overflow must be referred to causes which affect the deep springs. This same summer the pond has begun to fall again. It is remarkable that this fluctuation, whether periodical or not, appears thus to require many years for its accomplishment. I have observed one rise and a part of two falls, and I expect that a dozen or fifteen years hence the water will again be as low as I have ever known it. Flint's Pond, a mile eastward, allowing for the disturbance occasioned by its inlets and outlets, and the smaller intermediate ponds also, sympathize with Walden, and recently attained their greatest height at the same time with the latter. The same is true, as far as my observation goes, of White Pond.

This rise and fall of Walden at long intervals serves this use at least; the water standing at this great height for a year or more, though it makes it difficult to walk round it, kills the shrubs and trees which have sprung up about its edge since the last rise, — pitch pines, birches, alders, aspens, and others, — and, falling again, leaves an unobstructed shore; for, unlike many ponds and all waters which are subject to a daily tide, its shore is cleanest when the water is lowest. On the side of the pond next my house a row of pitch pines, fifteen feet high, has been killed and tipped over as if by a lever, and thus a stop put to their encroachments; and their size indicates how many years have elapsed since the

last rise to this height. By this fluctuation the pond asserts its title to a shore, and thus the *shore* is *shorn*, and the trees cannot hold it by right of possession. These are the lips of the lake, on which no beard grows. It licks its chaps from time to time. When the water is at its height, the alders, willows, and maples send forth a mass of fibrous red roots several feet long from all sides of their stems in the water, and to the height of three or four feet from the ground, in the effort to maintain themselves; and I have known the high blueberry bushes about the shore, which commonly produce no fruit, bear an abundant crop under these circumstances.

Some have been puzzled to tell how the shore became so regularly paved. My townsmen have all heard the tradition—the oldest people tell me that they heard it in their youth—that anciently the Indians were holding a pow-wow upon a hill here, which rose as high into the heavens as the pond now sinks deep into the earth, and they used much profanity, as the story goes, though this vice is one of which the Indians were never guilty, and while they were thus engaged the hill shook and suddenly sank, and only one old squaw, named Walden, escaped, and from her the pond was named. It has been conjectured that when the hill shook these stones rolled down its side and became the present shore. It is very certain, at any rate, that once there was no pond here, and now there is one; and this Indian fable does not in any respect conflict with the account of that ancient settler whom I have mentioned, who remembers so well when he first came here with his divining-rod, saw a

thin vapor rising from the sward, and the hazel pointed steadily downward, and he concluded to dig a well here. As for the stones, many still think that they are hardly to be accounted for by the action of the waves on these hills; but I observe that the surrounding hills are remarkably full of the same kind of stones, so that they have been obliged to pile them up in walls on both sides of the railroad cut nearest the pond; and, moreover, there are most stones where the shore is most abrupt; so that, unfortunately, it is no longer a mystery to me. I detect the paver. If the name was not derived from that of some English locality,—Saffron Walden, for instance,—one might suppose that it was called originally *Walled-in Pond*.

The pond was my well ready dug. For four months in the year its water is as cold as it is pure at all times; and I think that it is then as good as any, if not the best, in the town. In the winter, all water which is exposed to the air is colder than springs and wells which are protected from it. The temperature of the pond water which had stood in the room where I sat from five o'clock in the afternoon till noon the next day, the sixth of March, 1846, the thermometer having been up to 65° or 70° some of the time, owing partly to the sun on the roof, was 42° , or one degree colder than the water of one of the coldest wells in the village just drawn. The temperature of the Boiling Spring the same day was 45° , or the warmest of any water tried, though it is the coldest that I know of in summer, when, beside, shallow and stagnant surface water is not mingled with it. Moreover, in summer, Walden never becomes so warm as

most water which is exposed to the sun, on account of its depth. In the warmest weather I usually placed a pailful in my cellar, where it became cool in the night, and remained so during the day; though I also resorted to a spring in the neighborhood. It was as good when a week old as the day it was dipped, and had no taste of the pump. Whoever camps for a week in summer by the shore of a pond, needs only bury a pail of water a few feet deep in the shade of his camp to be independent of the luxury of ice.

There have been caught in Walden pickerel, one weighing seven pounds,—to say nothing of another which carried off a reel with great velocity, which the fisherman safely set down at eight pounds because he did not see him,—perch and pouts, some of each weighing over two pounds, shiners, chivins or roach (*Leuciscus pulchellus*), a very few breams, and a couple of eels, one weighing four pounds,—I am thus particular because the weight of a fish is commonly its only title to fame, and these are the only eels I have heard of here;—also, I have a faint recollection of a little fish some five inches long, with silvery sides and a greenish back, somewhat dace-like in its character, which I mention here chiefly to link my facts to fable. Nevertheless, this pond is not very fertile in fish. Its pickerel, though not abundant, are its chief boast. I have seen at one time lying on the ice pickerel of at least three different kinds: a long and shallow one, steel-colored, most like those caught in the river; a bright golden kind, with greenish reflections and remarkably deep, which is the most common here; and another, golden-colored, and

shaped like the last, but peppered on the sides with small dark brown or black spots, intermixed with a few faint blood-red ones, very much like a trout. The specific name *reticulatus* would not apply to this; it should be *guttatus* rather. These are all very firm fish, and weigh more than their size promises. The shiners, pouts, and perch also, and indeed all the fishes which inhabit this pond, are much cleaner, handsomer, and firmer-fleshed than those in the river and most other ponds, as the water is purer, and they can easily be distinguished from them. Probably many ichthyologists would make new varieties of some of them. There are also a clean race of frogs and tortoises, and a few mussels in it; muskrats and minks leave their traces about it, and occasionally a travelling mud-turtle visits it. Sometimes, when I pushed off my boat in the morning, I disturbed a great mud-turtle which had secreted himself under the boat in the night. Ducks and geese frequent it in the spring and fall, the white-bellied swallows (*Hirundo bicolor*) skim over it, and the peetweets (*Totanus macularius*) "teeter" along its stony shores all summer. I have sometimes disturbed a fish hawk sitting on a white pine over the water; but I doubt if it is ever profaned by the wing of a gull, like Fair Haven. At most, it tolerates one annual loon. These are all the animals of consequence which frequent it now.

You may see from a boat, in calm weather, near the sandy eastern shore, where the water is eight or ten feet deep, and also in some other parts of the pond, some circular heaps half a dozen feet in diameter by a foot in height, consisting of small stones less than a

hen's egg in size, where all around is bare sand. At first you wonder if the Indians could have formed them on the ice for any purpose, and so, when the ice melted, they sank to the bottom; but they are too regular and some of them plainly too fresh for that. They are similar to those found in rivers; but as there are no suckers nor lampreys here, I know not by what fish they could be made. Perhaps they are the nests of the chivin. These lend a pleasing mystery to the bottom.

The shore is irregular enough not to be monotonous. I have in my mind's eye the western, indented with deep bays, the bolder northern, and the beautifully scalloped southern shore, where successive capes overlap each other and suggest unexplored coves between. The forest has never so good a setting, nor is so distinctly beautiful, as when seen from the middle of a small lake amid hills which rise from the water's edge; for the water in which it is reflected not only makes the best foreground in such a case, but, with its winding shore, the most natural and agreeable boundary to it. There is no rawness nor imperfection in its edge there, as where the axe has cleared a part, or a cultivated field abuts on it. The trees have ample room to expand on the water side, and each sends forth its most vigorous branch in that direction. There Nature has woven a natural selvage, and the eye rises by just gradations from the low shrubs of the shore to the highest trees. There are few traces of man's hand to be seen. The water laves the shore as it did a thousand years ago.

A lake is the landscape's most beautiful and expressive feature. It is earth's eye; looking into which the be-

holder measures the depth of his own nature. The fluviatile trees next the shore are the slender eyelashes which fringe it, and the wooded hills and cliffs around are its overhanging brows.

Standing on the smooth sandy beach at the east end of the pond, in a calm September afternoon, when a slight haze makes the opposite shore-line indistinct, I have seen whence came the expression, "the glassy surface of a lake." When you invert your head, it looks like a thread of finest gossamer stretched across the valley, and gleaming against the distant pine woods, separating one stratum of the atmosphere from another. You would think that you could walk dry under it to the opposite hills, and that the swallows which skim over might perch on it. Indeed, they sometimes dive below the line, as it were by mistake, and are undeceived. As you look over the pond westward you are obliged to employ both your hands to defend your eyes against the reflected as well as the true sun, for they are equally bright; and if, between the two, you survey its surface critically, it is literally as smooth as glass, except where the skater insects, at equal intervals scattered over its whole extent, by their motions in the sun produce the finest imaginable sparkle on it, or, perchance, a duck plumes itself, or, as I have said, a swallow skims so low as to touch it. It may be that in the distance a fish describes an arc of three or four feet in the air, and there is one bright flash where it emerges, and another where it strikes the water; sometimes the whole silvery arc is revealed; or here and there, perhaps, is a thistle-down floating on its surface, which the fishes dart at and so

dimple it again. It is like molten glass cooled but not congealed, and the few motes in it are pure and beautiful like the imperfections in glass. You may often detect a yet smoother and darker water, separated from the rest as if by an invisible cobweb, boom of the water nymphs, resting on it. From a hilltop you can see a fish leap in almost any part; for not a pickerel or shiner picks an insect from this smooth surface but it manifestly disturbs the equilibrium of the whole lake. It is wonderful with what elaborateness this simple fact is advertised, — this piscine murder will out, — and from my distant perch I distinguish the circling undulations when they are half a dozen rods in diameter. You can even detect a water-bug (*Gyrinus*) ceaselessly progressing over the smooth surface a quarter of a mile off; for they furrow the water slightly, making a conspicuous ripple bounded by two diverging lines, but the skaters glide over it without rippling it perceptibly. When the surface is considerably agitated there are no skaters nor water-bugs on it, but apparently, in calm days, they leave their havens and adventurously glide forth from the shore by short impulses till they completely cover it. It is a soothing employment, on one of those fine days in the fall when all the warmth of the sun is fully appreciated, to sit on a stump on such a height as this, overlooking the pond, and study the dimpling circles which are incessantly inscribed on its otherwise invisible surface amid the reflected skies and trees. Over this great expanse there is no disturbance but it is thus at once gently smoothed away and assuaged, as, when a vase of water is jarred, the trembling circles seek the shore and all is

smooth again. Not a fish can leap or an insect fall on the pond but it is thus reported in circling dimples, in lines of beauty, as it were the constant welling up of its fountain, the gentle pulsing of its life, the heaving of its breast. The thrills of joy and thrills of pain are undistinguishable. How peaceful the phenomena of the lake! Again the works of man shine as in the spring. Ay, every leaf and twig and stone and cobweb sparkles now at mid-afternoon as when covered with dew in a spring morning. Every motion of an oar or an insect produces a flash of light; and if an oar falls, how sweet the echo!

In such a day, in September or October, Walden is a perfect forest mirror, set round with stones as precious to my eye as if fewer or rarer. Nothing so fair, so pure, and at the same time so large, as a lake, perchance, lies on the surface of the earth. Sky water. It needs no fence. Nations come and go without defiling it. It is a mirror which no stone can crack, whose quicksilver will never wear off, whose gilding Nature continually repairs; no storms, no dust, can dim its surface ever fresh;—a mirror in which all impurity presented to it sinks, swept and dusted by the sun's hazy brush,—this the light dust-cloth,—which retains no breath that is breathed on it, but sends its own to float as clouds high above its surface, and be reflected in its bosom still.

A field of water betrays the spirit that is in the air. It is continually receiving new life and motion from above. It is intermediate in its nature between land and sky. On land only the grass and trees wave, but the

water itself is rippled by the wind. I see where the breeze dashes across it by the streaks or flakes of light. It is remarkable that we can look down on its surface. We shall, perhaps, look down thus on the surface of air at length, and mark where a still subtler spirit sweeps over it.

The skaters and water-bugs finally disappear in the latter part of October, when the severe frosts have come; and then and in November, usually, in a calm day, there is absolutely nothing to ripple the surface. One November afternoon, in the calm at the end of a rain-storm of several days' duration, when the sky was still completely overcast and the air was full of mist, I observed that the pond was remarkably smooth, so that it was difficult to distinguish its surface; though it no longer reflected the bright tints of October, but the sombre November colors of the surrounding hills. Though I passed over it as gently as possible, the slight undulations produced by my boat extended almost as far as I could see, and gave a ribbed appearance to the reflections. But, as I was looking over the surface, I saw here and there at a distance a faint glimmer, as if some skater insects which had escaped the frosts might be collected there, or, perchance, the surface, being so smooth, betrayed where a spring welled up from the bottom. Paddling gently to one of these places, I was surprised to find myself surrounded by myriads of small perch, about five inches long, of a rich bronze color in the green water, sporting there, and constantly rising to the surface and dimpling it, sometimes leaving bubbles on it. In such transparent and seemingly bottomless

water, reflecting the clouds, I seemed to be floating through the air as in a balloon, and their swimming impressed me as a kind of flight or hovering, as if they were a compact flock of birds passing just beneath my level on the right or left, their fins, like sails, set all around them. There were many such schools in the pond, apparently improving the short season before winter would draw an icy shutter over their broad skylight, sometimes giving to the surface an appearance as if a slight breeze struck it, or a few rain-drops fell there. When I approached carelessly and alarmed them, they made a sudden splash and rippling with their tails, as if one had struck the water with a brushy bough, and instantly took refuge in the depths. At length the wind rose, the mist increased, and the waves began to run, and the perch leaped much higher than before, half out of water, a hundred black points, three inches long, at once above the surface. Even as late as the fifth of December, one year, I saw some dimples on the surface, and thinking it was going to rain hard immediately, the air being full of mist, I made haste to take my place at the oars and row homeward; already the rain seemed rapidly increasing, though I felt none on my cheek, and I anticipated a thorough soaking. But suddenly the dimples ceased, for they were produced by the perch, which the noise of my oars had scared into the depths, and I saw their schools dimly disappearing; so I spent a dry afternoon after all.

An old man who used to frequent this pond nearly sixty years ago, when it was dark with surrounding forests, tells me that in those days he sometimes saw it

all alive with ducks and other water-fowl, and that there were many eagles about it. He came here a-fishing, and used an old log canoe which he found on the shore. It was made of two white pine logs dug out and pinned together, and was cut off square at the ends. It was very clumsy, but lasted a great many years before it became water-logged and perhaps sank to the bottom. He did not know whose it was; it belonged to the pond. He used to make a cable for his anchor of strips of hickory bark tied together. An old man, a potter, who lived by the pond before the Revolution, told him once that there was an iron chest at the bottom, and that he had seen it. Sometimes it would come floating up to the shore; but when you went toward it, it would go back into deep water and disappear. I was pleased to hear of the old log canoe, which took the place of an Indian one of the same material but more graceful construction, which perchance had first been a tree on the bank, and then, as it were, fell into the water, to float there for a generation, the most proper vessel for the lake. I remember that when I first looked into these depths there were many large trunks to be seen indistinctly lying on the bottom, which had either been blown over formerly, or left on the ice at the last cutting, when wood was cheaper; but now they have mostly disappeared.

When I first paddled a boat on Walden, it was completely surrounded by thick and lofty pine and oak woods, and in some of its coves grape-vines had run over the trees next the water and formed bowers under which a boat could pass. The hills which form its shores

are so steep, and the woods on them were then so high, that, as you looked down from the west end, it had the appearance of an amphitheatre for some kind of sylvan spectacle. I have spent many an hour, when I was younger, floating over its surface as the zephyr willed, having paddled my boat to the middle, and lying on my back across the seats, in a summer forenoon, dreaming awake, until I was aroused by the boat touching the sand, and I arose to see what shore my fates had impelled me to; days when idleness was the most attractive and productive industry. Many a forenoon have I stolen away, preferring to spend thus the most valued part of the day; for I was rich, if not in money, in sunny hours and summer days, and spent them lavishly; nor do I regret that I did not waste more of them in the workshop or the teacher's desk. But since I left those shores the woodchoppers have still further laid them waste, and now for many a year there will be no more rambling through the aisles of the wood, with occasional vistas through which you see the water. My Muse may be excused if she is silent henceforth. How can you expect the birds to sing when their groves are cut down?

Now the trunks of trees on the bottom, and the old log canoe, and the dark surrounding woods, are gone, and the villagers, who scarcely know where it lies, instead of going to the pond to bathe or drink, are thinking to bring its water, which should be as sacred as the Ganges at least, to the village in a pipe, to wash their dishes with! — to earn their Walden by the turning of a cock or drawing of a plug! That devilish Iron Horse, whose

ear-rending neigh is heard throughout the town, has muddied the Boiling Spring with his foot, and he it is that has browsed off all the woods on Walden shore, that Trojan horse, with a thousand men in his belly, introduced by mercenary Greeks! Where is the country's champion, the Moore of Moore Hall, to meet him at the Deep Cut and thrust an avenging lance between the ribs of the bloated pest?

Nevertheless, of all the characters I have known, perhaps Walden wears best, and best preserves its purity. Many men have been likened to it, but few deserve that honor. Though the woodchoppers have laid bare first this shore and then that, and the Irish have built their sties by it, and the railroad has infringed on its border, and the ice-men have skimmed it once, it is itself unchanged, the same water which my youthful eyes fell on; all the change is in me. It has not acquired one permanent wrinkle after all its ripples. It is perennially young, and I may stand and see a swallow dip apparently to pick an insect from its surface as of yore. It struck me again to-night, as if I had not seen it almost daily for more than twenty years, — Why, here is Walden, the same woodland lake that I discovered so many years ago; where a forest was cut down last winter another is springing up by its shore as lustily as ever; the same thought is welling up to its surface that was then; it is the same liquid joy and happiness to itself and its Maker, ay, and it *may* be to me. It is the work of a brave man surely, in whom there was no guile! He rounded this water with his hand, deepened and clarified it in his thought, and in his will bequeathed it to Con-

cord. I see by its face that it is visited by the same reflection; and I can almost say, Walden, is it you?

It is no dream of mine,
To ornament a line;
I cannot come nearer to God and Heaven
Than I live to Walden even.
I am its stony shore,
And the breeze that passes o'er;
In the hollow of my hand
Are its water and its sand,
And its deepest resort
Lies high in my thought.

The cars never pause to look at it; yet I fancy that the engineers and firemen and brakemen, and those passengers who have a season ticket and see it often, are better men for the sight. The engineer does not forget at night, or his nature does not, that he has beheld this vision of serenity and purity once at least during the day. Though seen but once, it helps to wash out State Street and the engine's soot. One proposes that it be called "God's Drop."

I have said that Walden has no visible inlet nor outlet, but it is on the one hand distantly and indirectly related to Flint's Pond, which is more elevated, by a chain of small ponds coming from that quarter, and on the other directly and manifestly to Concord River, which is lower, by a similar chain of ponds through which in some other geological period it may have flowed, and by a little digging, which God forbid, it can be made to flow thither again. If by living thus reserved and austere, like a hermit in the woods, so long, it has acquired such

wonderful purity, who would not regret that the comparatively impure waters of Flint's Pond should be mingled with it, or itself should ever go to waste its sweetness in the ocean wave?

Flint's, or Sandy Pond, in Lincoln, our greatest lake and inland sea, lies about a mile east of Walden. It is much larger, being said to contain one hundred and ninety-seven acres, and is more fertile in fish; but it is comparatively shallow, and not remarkably pure. A walk through the woods thither was often my recreation. It was worth the while, if only to feel the wind blow on your cheek freely, and see the waves run, and remember the life of mariners. I went a-chestnutting there in the fall, on windy days, when the nuts were dropping into the water and were washed to my feet; and one day, as I crept along its sedgy shore, the fresh spray blowing in my face, I came upon the mouldering wreck of a boat, the sides gone, and hardly more than the impression of its flat bottom left amid the rushes; yet its model was sharply defined, as if it were a large decayed pad, with its veins. It was as impressive a wreck as one could imagine on the seashore, and had as good a moral. It is by this time mere vegetable mould and undistinguishable pond shore, through which rushes and flags have pushed up. I used to admire the ripple marks on the sandy bottom, at the north end of this pond, made firm and hard to the feet of the wader by the pressure of the water, and the rushes which grew in Indian file, in waving lines, corresponding to these marks, rank behind rank, as if the waves had

planted them. There also I have found, in considerable quantities, curious balls, composed apparently of fine grass or roots, of pipewort perhaps, from half an inch to four inches in diameter, and perfectly spherical. These wash back and forth in shallow water on a sandy bottom, and are sometimes cast on the shore. They are either solid grass, or have a little sand in the middle. At first you would say that they were formed by the action of the waves, like a pebble; yet the smallest are made of equally coarse materials, half an inch long, and they are produced only at one season of the year. Moreover, the waves, I suspect, do not so much construct as wear down a material which has already acquired consistency. They preserve their form when dry for an indefinite period.

Flint's Pond! Such is the poverty of our nomenclature. What right had the unclean and stupid farmer, whose farm abutted on this sky water, whose shores he has ruthlessly laid bare, to give his name to it? Some skin-flint, who loved better the reflecting surface of a dollar, or a bright cent, in which he could see his own brazen face; who regarded even the wild ducks which settled in it as trespassers; his fingers grown into crooked and horny talons from the long habit of grasping harpy-like; — so it is not named for me. I go not there to see him nor to hear of him; who never *saw* it, who never bathed in it, who never loved it, who never protected it, who never spoke a good word for it, nor thanked God that He had made it. Rather let it be named from the fishes that swim in it, the wild fowl or quadrupeds which frequent it, the wild flowers which grow by its shores, or

some wild man or child the thread of whose history is interwoven with its own; not from him who could show no title to it but the deed which a like-minded neighbor or legislature gave him,— him who thought only of its money value; whose presence perchance cursed all the shores; who exhausted the land around it, and would fain have exhausted the waters within it; who regretted only that it was not English hay or cranberry meadow,— there was nothing to redeem it, forsooth, in his eyes,— and would have drained and sold it for the mud at its bottom. It did not turn his mill, and it was no *privilege* to him to behold it. I respect not his labors, his farm where everything has its price, who would carry the landscape, who would carry his God, to market, if he could get anything for him; who goes to market *for* his god as it is; on whose farm nothing grows free, whose fields bear no crops, whose meadows no flowers, whose trees no fruits, but dollars; who loves not the beauty of his fruits, whose fruits are not ripe for him till they are turned to dollars. Give me the poverty that enjoys true wealth. Farmers are respectable and interesting to me in proportion as they are poor,— poor farmers. A model farm! where the house stands like a fungus in a muck-heap, chambers for men, horses, oxen, and swine, cleansed and uncleansed, all contiguous to one another! Stocked with men! A great grease-spot, redolent of manures and buttermilk! Under a high state of cultivation, being manured with the hearts and brains of men! As if you were to raise your potatoes in the churchyard! Such is a model farm.

No, no; if the fairest features of the landscape are to

be named after men, let them be the noblest and worthiest men alone. Let our lakes receive as true names at least as the Icarian Sea, where "still the shore" a "brave attempt resounds."

Goose Pond, of small extent, is on my way to Flint's; Fair Haven, an expansion of Concord River, said to contain some seventy acres, is a mile southwest; and White Pond, of about forty acres, is a mile and a half beyond Fair Haven. This is my lake country. These, with Concord River, are my water privileges; and night and day, year in year out, they grind such grist as I carry to them.

Since the wood-cutters, and the railroad, and I myself have profaned Walden, perhaps the most attractive, if not the most beautiful, of all our lakes, the gem of the woods, is White Pond; — a poor name from its commonness, whether derived from the remarkable purity of its waters or the color of its sands. In these as in other respects, however, it is a lesser twin of Walden. They are so much alike that you would say they must be connected under ground. It has the same stony shore, and its waters are of the same hue. As at Walden, in sultry dog-day weather, looking down through the woods on some of its bays which are not so deep but that the reflection from the bottom tinges them, its waters are of a misty bluish-green or glaucous color. Many years since I used to go there to collect the sand by cartloads, to make sandpaper with, and I have continued to visit it ever since. One who frequents it proposes to call it Virid Lake. Perhaps it might be called Yellow Pine Lake, from the following circumstance. About fifteen years

ago you could see the top of a pitch pine, of the kind called yellow pine hereabouts, though it is not a distinct species, projecting above the surface in deep water, many rods from the shore. It was even supposed by some that the pond had sunk, and this was one of the primitive forest that formerly stood there. I find that even so long ago as 1792, in a "Topographical Description of the Town of Concord," by one of its citizens, in the Collections of the Massachusetts Historical Society, the author, after speaking of Walden and White Ponds, adds, "In the middle of the latter may be seen, when the water is very low, a tree which appears as if it grew in the place where it now stands, although the roots are fifty feet below the surface of the water; the top of this tree is broken off, and at that place measures fourteen inches in diameter." In the spring of '49 I talked with the man who lives nearest the pond in Sudbury, who told me that it was he who got out this tree ten or fifteen years before. As near as he could remember, it stood twelve or fifteen rods from the shore, where the water was thirty or forty feet deep. It was in the winter, and he had been getting out ice in the forenoon, and had resolved that in the afternoon, with the aid of his neighbors, he would take out the old yellow pine. He sawed a channel in the ice toward the shore, and hauled it over and along and out on to the ice with oxen; but, before he had gone far in his work, he was surprised to find that it was wrong end upward, with the stumps of the branches pointing down, and the small end firmly fastened in the sandy bottom. It was about a foot in diameter at the big end, and he had expected to get a good saw-log, but

it was so rotten as to be fit only for fuel, if for that. He had some of it in his shed then. There were marks of an axe and of woodpeckers on the butt. He thought that it might have been a dead tree on the shore, but was finally blown over into the pond, and after the top had become water-logged, while the butt-end was still dry and light, had drifted out and sunk wrong end up. His father, eighty years old, could not remember when it was not there. Several pretty large logs may still be seen lying on the bottom, where, owing to the undulation of the surface, they look like huge water snakes in motion.

This pond has rarely been profaned by a boat, for there is little in it to tempt a fisherman. Instead of the white lily, which requires mud, or the common sweet flag, the blue flag (*Iris versicolor*) grows thinly in the pure water, rising from the stony bottom all around the shore, where it is visited by hummingbirds in June; and the color both of its bluish blades and its flowers and especially their reflections, are in singular harmony with the glaucous water.

White Pond and Walden are great crystals on the surface of the earth, Lakes of Light. If they were permanently congealed, and small enough to be clutched, they would, perchance, be carried off by slaves, like precious stones, to adorn the heads of emperors; but being liquid, and ample, and secured to us and our successors forever, we disregard them, and run after the diamond of Kohinoor. They are too pure to have a market value; they contain no muck. How much more beautiful than our lives, how much more transparent than our characters, are they! We never learned meanness of them. How

much fairer than the pool before the farmer's door, in which his ducks swim! Hither the clean wild ducks come. Nature has no human inhabitant who appreciates her. The birds with their plumage and their notes are in harmony with the flowers, but what youth or maiden conspires with the wild luxuriant beauty of Nature? She flourishes most alone, far from the towns where they reside. Talk of heaven! ye disgrace earth.

WINTER ANIMALS

WHEN the ponds were firmly frozen, they afforded not only new and shorter routes to many points, but new views from their surfaces of the familiar landscape around them. When I crossed Flint's Pond, after it was covered with snow, though I had often paddled about and skated over it, it was so unexpectedly wide and so strange that I could think of nothing but Baffin's Bay. The Lincoln hills rose up around me at the extremity of a snowy plain, in which I did not remember to have stood before; and the fishermen, at an indeterminable distance over the ice, moving slowly about with their wolfish dogs, passed for sealers or Esquimaux, or in misty weather loomed like fabulous creatures, and I did not know whether they were giants or pygmies. I took this course when I went to lecture in Lincoln in the evening, travelling in no road and passing no house between my own hut and the lecture room. In Goose Pond, which lay in my way, a colony of muskrats dwelt, and raised their cabins high above the ice, though none could be seen abroad when I crossed it. Walden, being like the rest usually bare of snow, or with only shallow and interrupted drifts on it, was my yard where I could walk freely when the snow was nearly two feet deep on a level elsewhere and the villagers were con-

fined to their streets. There, far from the village street, and except at very long intervals, from the jingle of sleigh-bells, I slid and skated, as in a vast moose-yard well trodden, overhung by oak woods and solemn pines bent down with snow or bristling with icicles.

For sounds in winter nights, and often in winter days, I heard the forlorn but melodious note of a hooting owl indefinitely far; such a sound as the frozen earth would yield if struck with a suitable plectrum, the very *lingua vernacula* of Walden Wood, and quite familiar to me at last, though I never saw the bird while it was making it. I seldom opened my door in a winter evening without hearing it; *Hoo hoo hoo, hoorer hoo*, sounded sonorously, and the first three syllables accented somewhat like *how der do*; or sometimes *hoo hoo* only. One night in the beginning of winter, before the pond froze over, about nine o'clock, I was startled by the loud honking of a goose, and, stepping to the door, heard the sound of their wings like a tempest in the woods as they flew low over my house. They passed over the pond toward Fair Haven, seemingly deterred from settling by my light, their commodore honking all the while with a regular beat. Suddenly an unmistakable cat owl from very near me, with the most harsh and tremendous voice I ever heard from any inhabitant of the woods, responded at regular intervals to the goose, as if determined to expose and disgrace this intruder from Hudson's Bay by exhibiting a greater compass and volume of voice in a native, and *boo-hoo* him out of Concord horizon. What do you mean by alarming the citadel at this time of night consecrated to me? Do you

think I am ever caught napping at such an hour, and that I have not got lungs and a larynx as well as yourself? *Boo-hoo, boo-hoo, boo-hoo!* It was one of the most thrilling discords I ever heard. And yet, if you had a discriminating ear, there were in it the elements of a concord such as these plains never saw nor heard.

I also heard the whooping of the ice in the pond, my great bed-fellow in that part of Concord, as if it were restless in its bed and would fain turn over, were troubled with flatulency and bad dreams; or I was waked by the cracking of the ground by the frost, as if some one had driven a team against my door, and in the morning would find a crack in the earth a quarter of a mile long and a third of an inch wide.

Sometimes I heard the foxes as they ranged over the snow-crust, in moonlight nights, in search of a partridge or other game, barking raggedly and demoniacally like forest dogs, as if laboring with some anxiety, or seeking expression, struggling for light and to be dogs outright and run freely in the streets; for if we take the ages into our account, may there not be a civilization going on among brutes as well as men? They seemed to me to be rudimental, burrowing men, still standing on their defence, awaiting their transformation. Sometimes one came near to my window, attracted by my light, barked a vulpine curse at me, and then retreated.

Usually the red squirrel (*Sciurus Hudsonius*) waked me in the dawn, coursing over the roof and up and down the sides of the house, as if sent out of the woods for this purpose. In the course of the winter I threw out half a bushel of ears of sweet corn, which had not

got ripe, on to the snow-crust by my door, and was amused by watching the motions of the various animals which were baited by it. In the twilight and the night the rabbits came regularly and made a hearty meal. All day long the red squirrels came and went, and afforded me much entertainment by their manœuvres. One would approach at first warily through the shrub oaks, running over the snow-crust by fits and starts like a leaf blown by the wind, now a few paces this way, with wonderful speed and waste of energy, making inconceivable haste with his "trotters," as if it were for a wager, and now as many paces that way, but never getting on more than half a rod at a time; and then suddenly pausing with a ludicrous expression and a gratuitous somerset, as if all the eyes in the universe were fixed on him, — for all the motions of a squirrel, even in the most solitary recesses of the forest, imply spectators as much as those of a dancing girl, — wasting more time in delay and circumspection than would have sufficed to walk the whole distance, — I never saw one walk, — and then suddenly, before you could say Jack Robinson, he would be in the top of a young pitch pine, winding up his clock and chiding all imaginary spectators, soliloquizing and talking to all the universe at the same time, — for no reason that I could ever detect, or he himself was aware of, I suspect. At length he would reach the corn, and selecting a suitable ear, frisk about in the same uncertain trigonometrical way to the topmost stick of my wood-pile, before my window, where he looked me in the face, and there sit for hours, supplying himself with a new ear from time

to time, nibbling at first voraciously and throwing the half-naked cobs about; till at length he grew more dainty still and played with his food, tasting only the inside of the kernel, and the ear, which was held balanced over the stick by one paw, slipped from his careless grasp and fell to the ground, when he would look over at it with a ludicrous expression of uncertainty, as if suspecting that it had life, with a mind not made up whether to get it again, or a new one, or be off; now thinking of corn, then listening to hear what was in the wind. So the little impudent fellow would waste many an ear in a forenoon; till at last, seizing some longer and plumper one, considerably bigger than himself, and skilfully balancing it, he would set out with it to the woods, like a tiger with a buffalo, by the same zigzag course and frequent pauses, scratching along with it as if it were too heavy for him and falling all the while, making its fall a diagonal between a perpendicular and horizontal, being determined to put it through at any rate; — a singularly frivolous and whimsical fellow; — and so he would get off with it to where he lived, perhaps carry it to the top of a pine tree forty or fifty rods distant, and I would afterwards find the cobs strewn about the woods in various directions.

At length the jays arrive, whose discordant screams were heard long before, as they were warily making their approach an eighth of a mile off, and in a stealthy and sneaking manner they flit from tree to tree, nearer and nearer, and pick up the kernels which the squirrels have dropped. Then, sitting on a pitch pine bough, they attempt to swallow in their haste a kernel which is too

big for their throats and chokes them; and after great labor they disgorge it, and spend an hour in the endeavor to crack it by repeated blows with their bills. They were manifestly thieves, and I had not much respect for them; but the squirrels, though at first shy, went to work as if they were taking what was their own.

Meanwhile also came the chickadees in flocks, which, picking up the crumbs the squirrels had dropped, flew to the nearest twig, and, placing them under their claws, hammered away at them with their little bills, as if it were an insect in the bark, till they were sufficiently reduced for their slender throats. A little flock of these tit-mice came daily to pick a dinner out of my wood-pile, or the crumbs at my door, with faint flitting lisping notes, like the tinkling of icicles in the grass, or else with sprightly *day day day*, or more rarely, in springlike days, a wiry summery *phe-be* from the woodside. They were so familiar that at length one alighted on an armful of wood which I was carrying in, and pecked at the sticks without fear. I once had a sparrow alight upon my shoulder for a moment while I was hoeing in a village garden, and I felt that I was more distinguished by that circumstance than I should have been by any epaulet I could have worn. The squirrels also grew at last to be quite familiar, and occasionally stepped upon my shoe, when that was the nearest way.

When the ground was not yet quite covered, and again near the end of winter, when the snow was melted on my south hillside and about my wood-pile, the partridges came out of the woods morning and evening to feed

there. Whichever side you walk in the woods the partridge bursts away on whirring wings, jarring the snow from the dry leaves and twigs on high, which comes sifting down in the sunbeams like golden dust, for this brave bird is not to be scared by winter. It is frequently covered up by drifts, and, it is said, "sometimes plunges from on wing into the soft snow, where it remains concealed for a day or two." I used to start them in the open land also, where they had come out of the woods at sunset to "bud" the wild apple trees. They will come regularly every evening to particular trees, where the cunning sportsman lies in wait for them, and the distant orchards next the woods suffer thus not a little. I am glad that the partridge gets fed, at any rate. It is Nature's own bird which lives on buds and diet-drink.

In dark winter mornings, or in short winter afternoons, I sometimes heard a pack of hounds threading all the woods with hounding cry and yelp, unable to resist the instinct of the chase, and the note of the hunting-horn at intervals, proving that man was in the rear. The woods ring again, and yet no fox bursts forth on to the open level of the pond, nor following pack pursuing their Actæon. And perhaps at evening I see the hunters returning with a single brush trailing from their sleigh for a trophy, seeking their inn. They tell me that if the fox would remain in the bosom of the frozen earth he would be safe, or if he would run in a straight line away no foxhound could overtake him; but, having left his pursuers far behind, he stops to rest and listen till they come up, and when he runs he circles round to his old haunts,

where the hunters await him. Sometimes, however, he will run upon a wall many rods, and then leap off far to one side, and he appears to know that water will not retain his scent. A hunter told me that he once saw a fox pursued by hounds burst out on to Walden when the ice was covered with shallow puddles, run part way across, and then return to the same shore. Ere long the hounds arrived, but here they lost the scent. Sometimes a pack hunting by themselves would pass my door, and circle round my house, and yelp and hound without regarding me, as if afflicted by a species of madness, so that nothing could divert them from the pursuit. Thus they circle until they fall upon the recent trail of a fox, for a wise hound will forsake everything else for this. One day a man came to my hut from Lexington to inquire after his hound that made a large track, and had been hunting for a week by himself. But I fear that he was not the wiser for all I told him, for every time I attempted to answer his questions he interrupted me by asking, "What do you do here?" He had lost a dog, but found a man.

One old hunter who has a dry tongue, who used to come to bathe in Walden once every year when the water was warmest, and at such times looked in upon me, told me that many years ago he took his gun one afternoon and went out for a cruise in Walden Wood; and as he walked the Wayland road he heard the cry of hounds approaching, and ere long a fox leaped the wall into the road, and as quick as thought leaped the other wall out of the road, and his swift bullet had not touched him. Some way behind came an old hound and her

three pups in full pursuit, hunting on their own account, and disappeared again in the woods. Late in the afternoon, as he was resting in the thick woods south of Walden, he heard the voice of the hounds far over toward Fair Haven still pursuing the fox; and on they came, their hounding cry which made all the woods ring sounding nearer and nearer, now from Well Meadow, now from the Baker Farm. For a long time he stood still and listened to their music, so sweet to a hunter's ear, when suddenly the fox appeared, threading the solemn aisles with an easy coursing pace, whose sound was concealed by a sympathetic rustle of the leaves, swift and still, keeping the ground, leaving his pursuers far behind; and, leaping upon a rock amid the woods, he sat erect and listening, with his back to the hunter. For a moment compassion restrained the latter's arm; but that was a short-lived mood, and as quick as thought can follow thought his piece was levelled, and *whang!* — the fox rolling over the rock lay dead on the ground. The hunter still kept his place and listened to the hounds. Still on they came, and now the near woods resounded through all their aisles with their demoniac cry. At length the old hound burst into view with muzzle to the ground, and snapping the air as if possessed, and ran directly to the rock; but spying the dead fox she suddenly ceased her hounding, as if struck dumb with amazement, and walked round and round him in silence; and one by one her pups arrived, and, like their mother, were sobered into silence by the mystery. Then the hunter came forward and stood in their midst, and the mystery was solved. They waited in silence while he skinned

the fox, then followed the brush a while, and at length turned off into the woods again. That evening a Weston squire came to the Concord hunter's cottage to inquire for his hounds, and told how for a week they had been hunting on their own account from Weston woods. The Concord hunter told him what he knew and offered him the skin; but the other declined it and departed. He did not find his hounds that night, but the next day learned that they had crossed the river and put up at a farmhouse for the night, whence, having been well fed, they took their departure early in the morning.

The hunter who told me this could remember one Sam Nutting, who used to hunt bears on Fair Haven Ledges, and exchange their skins for rum in Concord village; who told him, even, that he had seen a moose there. Nutting had a famous foxhound named Burgoyne,—he pronounced it Bugine,—which my informant used to borrow. In the “Wast Book” of an old trader of this town, who was also a captain, town-clerk, and representative, I find the following entry. Jan. 18th, 1742-3, “John Melven Cr. by 1 Grey Fox 0 — 2 — 3;” they are not now found here; and in his ledger, Feb. 7th, 1743, Hezekiah Stratton has credit “by $\frac{1}{2}$ a Catt skin 0 — 1 — $4\frac{1}{2}$;” of course, a wild-cat, for Stratton was a sergeant in the old French war, and would not have got credit for hunting less noble game. Credit is given for deerskins also, and they were daily sold. One man still preserves the horns of the last deer that was killed in this vicinity, and another has told me the particulars of the hunt in which his uncle was engaged. The hunters were formerly a numerous and merry crew here. I remember

well one gaunt Nimrod who would catch up a leaf by the roadside and play a strain on it wilder and more melodious, if my memory serves me, than any hunting-horn.

At midnight, when there was a moon, I sometimes met with hounds in my path prowling about the woods, which would skulk out of my way, as if afraid, and stand silent amid the bushes till I had passed.

Squirrels and wild mice disputed for my store of nuts. There were scores of pitch pines around my house, from one to four inches in diameter, which had been gnawed by mice the previous winter, — a Norwegian winter for them, for the snow lay long and deep, and they were obliged to mix a large proportion of pine bark with their other diet. These trees were alive and apparently flourishing at midsummer, and many of them had grown a foot, though completely girdled; but after another winter such were without exception dead. It is remarkable that a single mouse should thus be allowed a whole pine tree for its dinner, gnawing round instead of up and down it; but perhaps it is necessary in order to thin these trees, which are wont to grow up densely.

The hares (*Lepus Americanus*) were very familiar. One had her form under my house all winter, separated from me only by the flooring, and she startled me each morning by her hasty departure when I began to stir, — thump, thump, thump, striking her head against the floor timbers in her hurry. They used to come round my door at dusk to nibble the potato parings which I had thrown out, and were so nearly the color of the ground that they could hardly be distinguished when still. Some-

times in the twilight I alternately lost and recovered sight of one sitting motionless under my window. When I opened my door in the evening, off they would go with a squeak and a bounce. Near at hand they only excited my pity. One evening one sat by my door two paces from me, at first trembling with fear, yet unwilling to move; a poor wee thing, lean and bony, with ragged ears and sharp nose, scant tail and slender paws. It looked as if Nature no longer contained the breed of nobler bloods, but stood on her last toes. Its large eyes appeared young and unhealthy, almost dropsical. I took a step, and lo, away it scud with an elastic spring over the snow-crust, straightening its body and its limbs into graceful length, and soon put the forest between me and itself, — the wild free venison, asserting its vigor and the dignity of Nature. Not without reason was its slenderness. Such then was its nature. (*Lepus, levipes*, light-foot, some think.)

What is a country without rabbits and partridges? They are among the most simple and indigenous animal products; ancient and venerable families known to antiquity as to modern times; of the very hue and substance of Nature, nearest allied to leaves and to the ground, — and to one another; it is either winged or it is legged. It is hardly as if you had seen a wild creature when a rabbit or a partridge bursts away, only a natural one, as much to be expected as rustling leaves. The partridge and the rabbit are still sure to thrive, like true natives of the soil, whatever revolutions occur. If the forest is cut off, the sprouts and bushes which spring up afford them concealment, and they become more numerous

than ever. That must be a poor country indeed that does not support a hare. Our woods teem with them both, and around every swamp may be seen the partridge or rabbit walk, beset with twiggy fences and horse-hair snares, which some cow-boy tends.

JOHN BURROUGHS

THE SNOW-WALKERS

HE who marvels at the beauty of the world in summer will find equal cause for wonder and admiration in winter. It is true the pomp and the pageantry are swept away, but the essential elements remain,—the day and the night, the mountain and the valley, the elemental play and succession and the perpetual presence of the infinite sky. In winter the stars seem to have rekindled their fires, the moon achieves a fuller triumph, and the heavens wear a look of a more exalted simplicity. Summer is more wooing and seductive, more versatile and human, appeals to the affections and the sentiments, and fosters inquiry and the art impulse. Winter is of a more heroic cast, and addresses the intellect. The severe studies and disciplines come easier in winter. One imposes larger tasks upon himself, and is less tolerant of his own weaknesses.

The tendinous part of the mind, so to speak, is more developed in winter; the fleshy, in summer. I should say winter had given the bone and sinew to Literature, summer the tissues and blood.

The simplicity of winter has a deep moral. The return of nature, after such a career of splendor and prodigality, to habits so simple and austere, is not lost upon either the head or the heart. It is the philosopher coming back from the banquet and the wine to a cup of water and a crust of bread.

And then this beautiful masquerade of the elements, — the novel disguises our nearest friends put on! Here is another rain and another dew, water that will not flow, nor spill, nor receive the taint of an unclean vessel. And if we see truly, the same old beneficence and willingness to serve lurk beneath all.

Look up at the miracle of the falling snow, — the air a dizzy maze of whirling, eddying flakes, noiselessly transforming the world, the exquisite crystals dropping in ditch and gutter, and disguising in the same suit of spotless livery all objects upon which they fall. How novel and fine the first drifts! The old, dilapidated fence is suddenly set off with the most fantastic ruffles, scalloped and fluted after an unheard-of fashion! Looking down a long line of decrepit stone wall, in the trimming of which the wind had fairly run riot, I saw, as for the first time, what a severe yet master artist old Winter is. Ah, a severe artist! How stern the woods look, dark and cold and as rigid against the horizon as iron!

All life and action upon the snow have an added emphasis and significance. Every expression is underscored. Summer has few finer pictures than this winter one of the farmer foddering his cattle from a stack upon the clean snow, — the movement, the sharply defined figures, the great green flakes of hay, the long file of patient cows, the advance just arriving and pressing eagerly for the choicest morsels, — and the bounty and providence it suggests. Or the chopper in the woods, — the prostrate tree, the white new chips scattered about, his easy triumph over the cold, his coat hanging to a

limb, and the clear, sharp ring of his axe. The woods are rigid and tense, keyed up by the frost, and resound like a stringed instrument. Or the road-breakers, sallying forth with oxen and sleds in the still, white world, the day after the storm, to restore the lost track and demolish the beleaguering drifts.

All sounds are sharper in winter; the air transmits better. At night I hear more distinctly the steady roar of the North Mountain. In summer it is a sort of complacent purr, as the breezes stroke down its sides; but in winter always the same low, sullen growl.

A severe artist! No longer the canvas and the pigments, but the marble and the chisel. When the nights are calm and the moon full, I go out to gaze upon the wonderful purity of the moonlight and the snow. The air is full of latent fire, and the cold warms me — after a different fashion from that of the kitchen stove. The world lies about me in a “trance of snow.” The clouds are pearly and iridescent, and seem the farthest possible remove from the condition of a storm, — the ghosts of clouds, the indwelling beauty freed from all dross. I see the hills, bulging with great drifts, lift themselves up cool and white against the sky, the black lines of fences here and there obliterated by the depth of the snow. Presently a fox barks away up next the mountain, and I imagine I can almost see him sitting there, in his furs, upon the illuminated surface, and looking down in my direction. As I listen, one answers him from behind the woods in the valley. What a wild winter sound, wild and weird, up among the ghostly hills! Since the wolf has ceased to howl upon these mountains, and the panther

to scream, there is nothing to be compared with it. So wild! I get up in the middle of the night to hear it. It is refreshing to the ear, and one delights to know that such wild creatures are among us. At this season Nature makes the most of every throb of life that can withstand her severity. How heartily she indorses this fox! In what bold relief stand out the lives of all walkers of the snow! The snow is a great tell-tale, and blabs as effectually as it obliterates. I go into the woods, and know all that has happened. I cross the fields, and if only a mouse has visited his neighbor, the fact is chronicled.

The red fox is the only species that abounds in my locality; the little gray fox seems to prefer a more rocky and precipitous country, and a less rigorous climate; the cross fox is occasionally seen, and there are traditions of the silver gray among the oldest hunters. But the red fox is the sportsman's prize, and the only fur-bearer worthy of note in these mountains.¹ I go out in the morning, after a fresh fall of snow, and see at all points where he has crossed the road. Here he has leisurely passed within rifle-range of the house, evidently reconnoitring the premises with an eye to the hen-roost. That clear, sharp track, — there is no mistaking it for the clumsy footprint of a little dog. All his wildness and agility are photographed in it. Here he has taken fright, or suddenly recollected an engagement, and in long, graceful leaps, barely touching the fence, has gone careering up the hill as fleet as the wind.

The wild, buoyant creature, how beautiful he is! I

¹ A spur of the Catskills.

had often seen his dead carcass, and at a distance had witnessed the hounds drive him across the upper fields; but the thrill and excitement of meeting him in his wild freedom in the woods were unknown to me till, one cold winter day, drawn thither by the baying of a hound, I stood near the summit of the mountain, waiting a renewal of the sound, that I might determine the course of the dog and choose my position, — stimulated by the ambition of all young Nimrods to bag some notable game. Long I waited, and patiently, till, chilled and benumbed, I was about to turn back, when, hearing a slight noise, I looked up and beheld a most superb fox, loping along with inimitable grace and ease, evidently disturbed, but not pursued by the hound, and so absorbed in his private meditations that he failed to see me, though I stood transfixated with amazement and admiration, not ten yards distant. I took his measure at a glance, — a large male, with dark legs, and massive tail tipped with white, — a most magnificent creature; but so astonished and fascinated was I by this sudden appearance and matchless beauty, that not till I had caught the last glimpse of him, as he disappeared over a knoll, did I awake to my duty as a sportsman, and realize what an opportunity to distinguish myself I had unconsciously let slip. I clutched my gun, half angrily, as if it was to blame, and went home out of humor with myself and all fox-kind. But I have since thought better of the experience, and concluded that I bagged the game after all, the best part of it, and fleeced Reynard of something more valuable than his fur, without his knowledge.

This is thoroughly a winter sound, — this voice of the hound upon the mountain, — and one that is music to many ears. The long trumpet-like bay, heard for a mile or more, — now faintly back in the deep recesses of the mountain, — now distinct, but still faint, as the hound comes over some prominent point and the wind favors, — anon entirely lost in the gully, — then breaking out again much nearer, and growing more and more pronounced as the dog approaches, till, when he comes around the brow of the mountain, directly above you, the barking is loud and sharp. On he goes along the northern spur, his voice rising and sinking as the wind and the lay of the ground modify it, till lost to hearing.

The fox usually keeps half a mile ahead, regulating his speed by that of the hound, occasionally pausing a moment to divert himself with a mouse, or to contemplate the landscape, or to listen for his pursuer. If the hound press him too closely, he leads off from mountain to mountain, and so generally escapes the hunter; but if the pursuit be slow, he plays about some ridge or peak, and falls a prey, though not an easy one, to the experienced sportsman.

A most spirited and exciting chase occurs when the farm-dog gets close upon one in the open field, as sometimes happens in the early morning. The fox relies so confidently upon his superior speed, that I imagine he half tempts the dog to the race. But if the dog be a smart one, and their course lie downhill, over smooth ground, Reynard must put his best foot forward, and then sometimes suffer the ignominy of being run over by his pursuer, who, however, is quite unable to pick

him up, owing to the speed. But when they mount the hill, or enter the woods, the superior nimbleness and agility of the fox tell at once, and he easily leaves the dog far in his rear. For a cur less than his own size he manifests little fear, especially if the two meet alone, remote from the house. In such cases, I have seen first one turn tail, then the other.

A novel spectacle often occurs in summer, when the female has young. You are rambling on the mountain, accompanied by your dog, when you are startled by that wild, half-threatening squall, and in a moment perceive your dog, with inverted tail, and shame and confusion in his looks, sneaking toward you, the old fox but a few rods in his rear. You speak to him sharply, when he bristles up, turns about, and, barking, starts off vigorously, as if to wipe out the dishonor; but in a moment comes sneaking back more abashed than ever, and owns himself unworthy to be called a dog. The fox fairly shames him out of the woods. The secret of the matter is her sex, though her conduct, for the honor of the fox be it said, seems to be prompted only by solicitude for the safety of her young.

One of the most notable features of the fox is his large and massive tail. Seen running on the snow at a distance, his tail is quite as conspicuous as his body; and, so far from appearing a burden, seems to contribute to his lightness and buoyancy. It softens the outline of his movements, and repeats or continues to the eye the ease and poise of his carriage. But, pursued by the hounds on a wet, thawy day, it often becomes so heavy and bedraggled as to prove a serious inconvenience, and com-

pels him to take refuge in his den. He is very loath to do this; both his pride and the traditions of his race stimulate him to run it out, and win by fair superiority of wind and speed; and only a wound or a heavy and moppish tail will drive him to avoid the issue in this manner.

To learn his surpassing shrewdness and cunning, attempt to take him with a trap. Rogue that he is, he always suspects some trick, and one must be more of a fox than he is himself to overreach him. At first sight it would appear easy enough. With apparent indifference he crosses your path, or walks in your footsteps in the field, or travels along the beaten highway, or lingers in the vicinity of stacks and remote barns. Carry the carcass of a pig, or a fowl, or a dog, to a distant field in midwinter, and in a few nights his tracks cover the snow about it.

The inexperienced country youth, misled by this seeming carelessness of Reynard, suddenly conceives a project to enrich himself with fur, and wonders that the idea has not occurred to him before, and to others. I knew a youthful yeoman of this kind, who imagined he had found a mine of wealth on discovering on a remote side-hill, between two woods, a dead porker, upon which it appeared all the foxes of the neighbourhood had nightly banqueted. The clouds were burdened with snow; and as the first flakes commenced to eddy down, he set out, trap and broom in hand, already counting over in imagination the silver quarters he would receive for his first fox-skin. With the utmost care, and with a palpitating heart, he removed enough

of the trodden snow to allow the trap to sink below the surface. Then, carefully sifting the light element over it and sweeping his tracks full, he quickly withdrew, laughing exultingly over the little surprise he had prepared for the cunning rogue. The elements conspired to aid him, and the falling snow rapidly obliterated all vestiges of his work. The next morning at dawn he was on his way to bring in his fur. The snow had done its work effectually, and, he believed, had kept his secret well. Arrived in sight of the locality, he strained his vision to make out his prize lodged against the fence at the foot of the hill. Approaching nearer, the surface was unbroken, and doubt usurped the place of certainty in his mind. A slight mound marked the site of the porker, but there was no footprint near it. Looking up the hill, he saw where Reynard had walked leisurely down toward his wonted bacon till within a few yards of it, when he had wheeled, and with prodigious strides disappeared in the woods. The young trapper saw at a glance what a comment this was upon his skill in the art, and, indignantly exhuming the iron, he walked home with it, the stream of silver quarters suddenly setting in another direction.

The successful trapper commences in the fall, or before the first deep snow. In a field not too remote, with an old axe he cuts a small place, say ten inches by fourteen, in the frozen ground, and removes the earth to the depth of three or four inches, then fills the cavity with dry ashes, in which are placed bits of roasted cheese. Reynard is very suspicious at first, and gives the place a wide berth. It looks like design, and he

will see how the thing behaves before he approaches too near. But the cheese is savory and the cold severe. He ventures a little closer every night, until he can reach and pick a piece from the surface. Emboldened by success, like other mortals, he presently digs freely among the ashes, and, finding a fresh supply of the delectable morsels every night, is soon thrown off his guard and his suspicions quite lulled. After a week of baiting in this manner, and on the eve of a light fall of snow, the trapper carefully conceals his trap in the bed, first smoking it thoroughly with hemlock boughs to kill or neutralize the smell of the iron. If the weather favors and the proper precautions have been taken, he may succeed, though the chances are still greatly against him.

Reynard is usually caught very lightly, seldom more than the ends of his toes being between the jaws. He sometimes works so cautiously as to spring the trap without injury even to his toes, or may remove the cheese night after night without even springing it. I knew an old trapper who, on finding himself outwitted in this manner, tied a bit of cheese to the pan, and next morning had poor Reynard by the jaw. The trap is not fastened, but only encumbered with a clog, and is all the more sure in its hold by yielding to every effort of the animal to extricate himself.

When Reynard sees his captor approaching, he would fain drop into a mouse-hole to render himself invisible. He crouches to the ground and remains perfectly motionless until he perceives himself discovered, when he makes one desperate and final effort to escape, but ceases all struggling as you come up, and behaves

in a manner that stamps him a very timid warrior,—cowering to the earth with a mingled look of shame, guilt, and abject fear. A young farmer told me of tracing one with his trap to the border of a wood, where he discovered the cunning rogue trying to hide by embracing a small tree. Most animals, when taken in a trap, show fight; but Reynard has more faith in the nimbleness of his feet than in the terror of his teeth.

Entering the woods, the number and variety of the tracks contrast strongly with the rigid, frozen aspect of things. Warm jets of life still shoot and play amid this snowy desolation. Fox tracks are far less numerous than in the fields; but those of hares, skunks, partridges, squirrels, and mice abound. The mice tracks are very pretty, and look like a sort of fantastic stitching on the coverlid of the snow. One is curious to know what brings these tiny creatures from their retreats; they do not seem to be in quest of food, but rather to be traveling about for pleasure or sociability, though always going post-haste, and linking stump with stump and tree with tree by fine, hurried strides. That is when they travel openly; but they have hidden passages and winding galleries under the snow, which undoubtedly are their main avenues of communication. Here and there these passages rise so near the surface as to be covered by only a frail arch of snow, and a slight ridge betrays their course to the eye. I know him well. He is known to the farmer as the "deer mouse," to the naturalist as the white-footed mouse,—a very beautiful creature, nocturnal in his habits, with large ears, and large, fine eyes full of a wild, harmless look. He is daintily marked, with

white feet and a white belly. When disturbed by day he is very easily captured, having none of the cunning or viciousness of the common Old World mouse.

It is he who, high in the hollow trunk of some tree, lays by a store of beechnuts for winter use. Every nut is carefully shelled, and the cavity that serves as storehouse lined with grass and leaves. The wood-chopper frequently squanders this precious store. I have seen half a peck taken from one tree, as clean and white as if put up by the most delicate hands, — as they were. How long it must have taken the little creature to collect this quantity, to hull them one by one, and convey them up to his fifth-story chamber! He is not confined to the woods, but is quite as common in the fields, particularly in the fall, amid the corn and potatoes. When routed by the plow, I have seen the old one take flight with half a dozen young hanging to her teats, and with such reckless speed that some of the young would lose their hold and fly off amid the weeds. Taking refuge in a stump with the rest of her family, the anxious mother would presently come back and hunt up the missing ones.

The snow-walkers are mostly night-walkers also, and the record they leave upon the snow is the main clew one has to their life and doings. The hare is nocturnal in its habits, and though a very lively creature at night, with regular courses and run-ways through the wood, is entirely quiet by day. Timid as he is, he makes little effort to conceal himself, usually squatting beside a log, stump, or tree, and seeming to avoid rocks and ledges, where he might be partially housed from the cold and

the snow, but where also — and this consideration undoubtedly determines his choice — he would be more apt to fall a prey to his enemies. In this, as well as in many other respects, he differs from the rabbit proper: he never burrows in the ground, or takes refuge in a den or hole, when pursued. If caught in the open fields, he is much confused and easily overtaken by the dog; but in the woods, he leaves him at a bound. In summer, when first disturbed, he beats the ground violently with his feet, by which means he would express to you his surprise or displeasure; it is a dumb way he has of scolding. After leaping a few yards, he pauses an instant, as if to determine the degree of danger, and then hurries away with a much lighter tread.

His feet are like great pads, and his track has little of the sharp, articulated expression of Reynard's, or of animals that climb or dig. Yet it is very pretty like all the rest, and tells its own tale. There is nothing bold or vicious or vulpine in it, and his timid, harmless character is published at every leap. He abounds in dense woods, preferring localities filled with a small under-growth of beech and birch, upon the bark of which he feeds. Nature is rather partial to him, and matches his extreme local habits and character with a suit that corresponds with his surroundings, — reddish gray in summer and white in winter.

The sharp-rayed track of the partridge adds another figure to this fantastic embroidery upon the winter snow. Her course is a clear, strong line, sometimes quite wayward, but generally very direct, steering for the densest, most impenetrable places, — leading you over logs and

through brush, alert and expectant, till, suddenly, she bursts up a few yards from you, and goes humming through the trees, — the complete triumph of endurance and vigor. Hardy native bird, may your tracks never be fewer, or your visits to the birch-tree less frequent!

The squirrel tracks — sharp, nervous, and wiry — have their histories also. But how rarely we see squirrels in winter! The naturalists say they are mostly torpid; yet evidently that little pocket-faced predator, the chipmunk, was not carrying buckwheat for so many days to his hole for nothing: was he anticipating a state of torpidity, or providing against the demands of a very active appetite? Red and gray squirrels are more or less active all winter, though very shy, and, I am inclined to think, partially nocturnal in their habits. Here a gray one has just passed, — came down that tree and went up this; there he dug for a beechnut, and left the burr on the snow. How did he know where to dig? During an unusually severe winter I have known him to make long journeys to a barn, in a remote field, where wheat was stored. How did he know there was wheat there? In attempting to return, the adventurous creature was frequently run down and caught in the deep snow.

His home is in the trunk of some old birch or maple, with an entrance far up amid the branches. In the spring he builds himself a summer-house of small leafy twigs in the top of a neighboring beech, where the young are reared and much of the time is passed. But the safer retreat in the maple is not abandoned, and both old and young resort thither in the fall, or when danger threatens. Whether this temporary residence amid the branches is

for elegance or pleasure, or for sanitary reasons or domestic convenience, the naturalist has forgotten to mention.

The elegant creature, so cleanly in its habits, so graceful in its carriage, so nimble and daring in its movements, excites feelings of admiration akin to those awakened by the birds and the fairer forms of nature. His passage through the trees is almost a flight. Indeed, the flying squirrel has little or no advantage over him, and in speed and nimbleness cannot compare with him at all. If he miss his footing and fall, he is sure to catch on the next branch; if the connection be broken, he leaps recklessly for the nearest spray or limb, and secures his hold, even if it be by the aid of his teeth.

His career of frolic and festivity begins in the fall, after the birds have left us and the holiday spirit of nature has commenced to subside. How absorbing the pastime of the sportsman who goes to the woods in the still October morning in quest of him! You step lightly across the threshold of the forest, and sit down upon the first log or rock to await the signals. It is so still that the ear suddenly seems to have acquired new powers, and there is no movement to confuse the eye. Presently you hear the rustling of a branch, and see it sway or spring as the squirrel leaps from or to it; or else you hear a disturbance in the dry leaves, and mark one running upon the ground. He has probably seen the intruder, and, not liking his stealthy movements, desires to avoid a nearer acquaintance. Now he mounts a stump to see if the way is clear, then pauses a moment at the foot of a tree to take his bearings, his tail, as he skims

along, undulating behind him, and adding to the easy grace and dignity of his movements. Or else you are first advised of his proximity by the dropping of a false nut, or the fragments of the shucks rattling upon the leaves. Or, again, after contemplating you awhile unobserved, and making up his mind that you are not dangerous, he strikes an attitude on a branch, and commences to quack and bark, with an accompanying movement of his tail. Late in the afternoon, when the same stillness reigns, the same scenes are repeated. There is a black variety, quite rare, but mating freely with the gray, from which he seems to be distinguished only in color.

The track of the red squirrel may be known by its smaller size. He is more common and less dignified than the gray, and oftener guilty of petty larceny about the barns and grain-fields. He is most abundant in old barkpeelings, and low, dilapidated hemlocks, from which he makes excursions to the fields and orchards, spinning along the tops of the fences, which afford not only convenient lines of communication, but a safe retreat if danger threatens. He loves to linger about the orchard; and, sitting upright on the topmost stone in the wall, or on the tallest stake in the fence, chipping up an apple for the seeds, his tail conforming to the curve of his back, his paws shifting and turning the apple, he is a pretty sight, and his bright, pert appearance atones for all the mischief he does. At home, in the woods, he is the most frolicsome and loquacious. The appearance of anything unusual, if, after contemplating it a moment, he concludes it not dangerous, excites his un-

bounded mirth and ridicule, and he snickers and chatters, hardly able to contain himself; now darting up the trunk of a tree and squealing in derision, then hopping into position on a limb and dancing to the music of his own cackle, and all for your special benefit.

There is something very human in this apparent mirth and mockery of the squirrels. It seems to be a sort of ironical laughter, and implies self-conscious pride and exultation in the laugher. "What a ridiculous thing you are, to be sure!" he seems to say; "how clumsy and awkward, and what a poor show for a tail! Look at me, look at me!" — and he capers about in his best style. Again, he would seem to tease you and provoke your attention; then suddenly assumes a tone of good-natured, childlike defiance and derision. That pretty little imp the chipmunk will sit on the stone above his den and defy you, as plainly as if he said so, to catch him before he can get into his hole if you can. You hurl a stone at him, and "No, you did n't!" comes up from the depth of his retreat.

In February another track appears upon the snow, slender and delicate, about a third larger than that of the gray squirrel, indicating no haste or speed, but, on the contrary, denoting the most imperturbable ease and leisure, the footprints so close together that the trail appears like a chain of curiously carved links. Sir *Mephitis mephitica*, or, in plain English, the skunk, has awakened from his six weeks' nap, and come out into society again. He is a nocturnal traveler, very bold and impudent, coming quite up to the barn and outbuildings, and sometimes taking up his quarters for the season

under the haymow. There is no such word as hurry in his dictionary, as you may see by his path upon the snow. He has a very sneaking, insinuating way, and goes creeping about the fields and woods, never once in a perceptible degree altering his gait, and, if a fence crosses his course, steers for a break or opening to avoid climbing. He is too indolent even to dig his own hole, but appropriates that of a woodchuck, or hunts out a crevice in the rocks, from which he extends his rambling in all directions, preferring damp, thawy weather. He has very little discretion or cunning, and holds a trap in utter contempt, stepping into it as soon as beside it, relying implicitly for defense against all forms of danger upon the unsavory punishment he is capable of inflicting. He is quite indifferent to both man and beast, and will not hurry himself to get out of the way of either. Walking through the summer fields at twilight, I have come near stepping upon him, and was much the more disturbed of the two. When attacked in the open field he confounds the plans of his enemies by the unheard-of tactics of exposing his rear rather than his front. "Come if you dare," he says, and his attitude makes even the farm-dog pause. After a few encounters of this kind, and if you entertain the usual hostility towards him, your mode of attack will speedily resolve itself into moving about him in a circle, the radius of which will be the exact distance at which you can hurl a stone with accuracy and effect.

He has a secret to keep and knows it, and is careful not to betray himself until he can do so with the most telling effect. I have known him to preserve his serenity

even when caught in a steel trap, and look the very picture of injured innocence, manoeuvring carefully and deliberately to extricate his foot from the grasp of the naughty jaws. Do not by any means take pity on him, and lend a helping hand!

How pretty his face and head! How fine and delicate his teeth, like a weasel's or a cat's! When about a third grown, he looks so well that one covets him for a pet. He is quite precocious, however, and capable, even at this tender age, of making a very strong appeal to your sense of smell.

No animal is more cleanly in his habits than he. He is not an awkward boy who cuts his own face with his whip; and neither his flesh nor his fur hints the weapon with which he is armed. The most silent creature known to me, he makes no sound, so far as I have observed, save a diffuse, impatient noise, like that produced by beating your hand with a whisk-broom, when the farm-dog has discovered his retreat in the stone fence. He renders himself obnoxious to the farmer by his partiality for hen's eggs and young poultry. He is a confirmed epicure, and at plundering hen-roosts an expert. Not the full-grown fowls are his victims, but the youngest and most tender. At night Mother Hen receives under her maternal wings a dozen newly hatched chickens, and with much pride and satisfaction feels them all safely tucked away in her feathers. In the morning she is walking about disconsolately, attended by only two or three of all that pretty brood. What has happened? Where are they gone? That pickpocket Sir Mephitis could solve the mystery. Quietly has he approached,

under cover of darkness, and one by one relieved her of her precious charge. Look closely and you will see their little yellow legs and beaks, or part of a mangled form, lying about on the ground. Or, before the hen has hatched, he may find her out, and, by the same sleight of hand, remove every egg, leaving only the empty blood-stained shells to witness against him. The birds, especially the ground-builders, suffer in like manner from his plundering propensities.

The secretion upon which he relies for defense, and which is the chief source of his unpopularity, while it affords good reasons against cultivating him as a pet, and mars his attractiveness as game, is by no means the greatest indignity that can be offered to a nose. It is a rank, living smell, and has none of the sickening qualities of disease or putrefaction. Indeed, I think a good smeller will enjoy its most refined intensity. It approaches the sublime, and makes the nose tingle. It is tonic and bracing, and, I can readily believe, has rare medicinal qualities. I do not recommend its use as eyewater, though an old farmer assures me it has undoubted virtues when thus applied. Hearing, one night, a disturbance among his hens, he rushed suddenly out to catch the thief, when Sir Mephitis, taken by surprise, and no doubt much annoyed at being interrupted, discharged the vials of his wrath full in the farmer's face, and with such admirable effect that, for a few moments, he was completely blinded, and powerless to revenge himself upon the rogue, who embraced the opportunity to make good his escape; but he declared that afterwards his eyes felt as if purged by fire, and his sight was much clearer.

In March that brief summary of a bear the raccoon comes out of his den in the ledges, and leaves his sharp digitigrade track upon the snow, — traveling not unfrequently in pairs, — a lean, hungry couple, bent on pillage and plunder. They have an unenviable time of it, — feasting in the summer and fall, hibernating in winter, and starving in spring. In April I have found the young of the previous year creeping about the fields, so reduced by starvation as to be quite helpless, and offering no resistance to my taking them up by the tail and carrying them home.

The old ones also become very much emaciated, and come boldly up to the barn or other outbuildings in quest of food. I remember, one morning in early spring, of hearing old Cuff, the farm-dog, barking vociferously before it was yet light. When we got up we discovered him, at the foot of an ash-tree standing about thirty rods from the house, looking up at some gray object in the leafless branches, and by his manners and his voice evincing great impatience that we were so tardy in coming to his assistance. Arrived on the spot, we saw in the tree a coon of unusual size. One bold climber proposed to go up and shake him down. This was what old Cuff wanted, and he fairly bounded with delight as he saw his young master shinning up the tree. Approaching within eight or ten feet of the coon, he seized the branch to which it clung and shook long and fiercely. But the coon was in no danger of losing its hold, and, when the climber paused to renew his hold, it turned toward him with a growl, and showed very clearly a purpose to advance to the attack. This caused his pur-

suer to descend to the ground with all speed. When the coon was finally brought down with a gun, he fought the dog, which was a large, powerful animal, with great fury, returning bite for bite for some moments; and after a quarter of an hour had elapsed and his unequal antagonist had shaken him as a terrier does a rat, making his teeth meet through the small of his back, the coon still showed fight.

They are very tenacious of life, and like the badger will always whip a dog of their own size and weight. A woodchuck can bite severely, having teeth that cut like chisels, but a coon has agility and power of limb as well.

They are considered game only in the fall, or towards the close of summer, when they become fat and their flesh sweet. At this time, cooning in the remote interior is a famous pastime. As this animal is entirely nocturnal in its habits, it is hunted only at night. A piece of corn on some remote side-hill near the mountain, or between two pieces of woods, is most apt to be frequented by them. While the corn is yet green they pull the ears down like hogs, and, tearing open the sheathing of husks, eat the tender, succulent kernels, bruising and destroying much more than they devour. Sometimes their ravages are a matter of serious concern to the farmer. But every such neighborhood has its coon-dog, and the boys and young men dearly love the sport. The party sets out about eight or nine o'clock of a dark, moonless night, and stealthily approaches the corn-field. The dog knows his business, and when he is put into a patch of corn and told to "hunt them up" he makes a thorough search, and will not be misled by any other

scent. You hear him rattling through the corn, hither and yon, with great speed. The coons prick up their ears, and leave on the opposite side of the field. In the stillness you may sometimes hear a single stone rattle on the wall as they hurry toward the woods. If the dog finds nothing, he comes back to his master in a short time, and says in his dumb way, "No coon there." But if he strikes a trail, you presently hear a louder rattling on the stone wall, and then a hurried bark as he enters the woods, followed in a few minutes by loud and repeated barking as he reaches the foot of the tree in which the coon has taken refuge. Then follows a pell-mell rush of the cooning party up the hill, into the woods, through the brush and the darkness, falling over prostrate trees, pitching into gullies and hollows, losing hats and tearing clothes, till finally, guided by the baying of the faithful dog, the tree is reached. The first thing now in order is to kindle a fire, and, if its light reveals the coon, to shoot him; if not, to fell the tree with an axe. If this happens to be too great a sacrifice of timber and of strength, to sit down at the foot of the tree till morning.

But with March our interest in these phases of animal life, which winter has so emphasized and brought out, begins to decline. Vague rumors are afloat in the air of a great and coming change. We are eager for Winter to be gone, since he, too, is fugitive and cannot keep his place. Invisible hands deface his icy statuary; his chisel has lost its cunning. The drifts, so pure and exquisite, are now earth-stained and weather-worn, — the flutes and scallops, and fine, firm lines, all gone; and what was a grace and an ornament to the hills is now a disfigura-

tion. Like worn and unwashed linen appear the remains of that spotless robe with which he clothed the world as his bride.

But he will not abdicate without a struggle. Day after day he rallies his scattered forces, and night after night pitches his white tents on the hills, and would fain regain his lost ground; but the young prince in every encounter prevails. Slowly and reluctantly the gray old hero retreats up the mountain, till finally the south rain comes in earnest, and in a night he is dead.

OUR RURAL DIVINITY

I WONDER that Wilson Flagg did not include the cow among his “Picturesque Animals,” for that is where she belongs. She has not the classic beauty of the horse, but in picture-making qualities she is far ahead of him. Her shaggy, loose-jointed body; her irregular, sketchy outlines, like those of the landscape, — the hollows and ridges, the slopes and prominences; her tossing horns, her bushy tail, her swinging gait, her tranquil, ruminating habits, — all tend to make her an object upon which the artist eye loves to dwell. The artists are forever putting her into pictures, too. In rural landscape scenes she is an important feature. Behold her grazing in the pastures and on the hillsides, or along banks of streams, or ruminating under wide-spreading trees, or standing belly-deep in the creek or pond, or lying upon the smooth places in the quiet summer afternoon, the day’s grazing done, and waiting to be summoned home to be milked; and again in the twilight lying upon the level summit of the hill, or where the sward is thickest and softest; or in winter a herd of them filing along toward the spring to drink, or being “foddered” from the stack in the field upon the new snow, — surely the cow is a picturesque animal, and all her goings and comings are pleasant to behold.

I looked into Hamerton’s clever book on the domestic animals also, expecting to find my divinity duly

celebrated, but he passes her by and contemplates the bovine qualities only as they appear in the ox and the bull.

Neither have the poets made much of the cow, but have rather dwelt upon the steer, or the ox yoked to the plow. I recall this touch from Emerson:—

“The heifer that lows in the upland farm,
Far heard, lows not thine ear to charm.”

But the ear is charmed, nevertheless, especially if it be not too near, and the air be still and dense, or hollow, as the farmer says. And again, if it be springtime and she task that powerful bellows of hers to its utmost capacity, how round the sound is, and how far it goes over the hills!

The cow has at least four tones or lows. First, there is her alarmed or distressed low when deprived of her calf, or when separated from her mates, — her low of affection. Then there is her call of hunger, a petition for food, sometimes full of impatience, or her answer to the farmer's call, full of eagerness. Then there is that peculiar frenzied bawl she utters on smelling blood, which causes every member of the herd to lift its head and hasten to the spot, — the native cry of the clan. When she is gored or in great danger she bawls also, but that is different. And lastly, there is the long, sonorous volley she lets off on the hills or in the yard, or along the highway, and which seems to be expressive of a kind of unrest and vague longing, — the longing of the imprisoned Io for her lost identity. She sends her voice forth so that every god on Mount Olympus can hear her

Grazing Cows



plaint. She makes this sound in the morning, especially in the spring, as she goes forth to graze.

One of our rural poets, Myron Benton, whose verse often has the flavor of sweet cream, has written some lines called "Rumination," in which the cow is the principal figure, and with which I am permitted to adorn my theme. The poet first gives his attention to a little brook that "breaks its shallow gossip" at his feet and "drowns the oriole's voice:" —

"But moveth not that wise and ancient cow,
Who chews her juicy cud so languid now
Beneath her favorite elm, whose drooping bough
Lulls all but inward vision fast asleep:
But still, her tireless tail a pendulum sweep
Mysterious clock-work guides, and some hid pulley
Her drowsy cud, each moment, raises duly.

"Of this great, wondrous world she has seen more
Than you, my little brook, and cropped its store
Of succulent grass on many a mead and lawn;
And strayed to distant uplands in the dawn.
And she has had some dark experience
Of graceless man's ingratitude; and hence
Her ways have not been ways of pleasantness,
Nor all her paths of peace. But her distress
And grief she has lived past; your giddy round
Disturbs her not, for she is learned profound
In deep brahminical philosophy.
She chews the cud of sweetest revery
Above your worldly prattle, brooklet merry,
Oblivious of all things sublunary."

The cow figures in Grecian mythology, and in the Oriental literature is treated as a sacred animal. "The clouds are cows and the rain milk." I remember what

Herodotus says of the Egyptians' worship of heifers and steers; and in the traditions of the Celtic nations the cow is regarded as a divinity. In Norse mythology the milk of the cow Andhumbla afforded nourishment to the Frost giants, and it was she that licked into being and into shape a god, the father of Odin. If anything could lick a god into shape, certainly the cow could do it. You may see her perform this office for young Taurus any spring. She licks him out of the fogs and bewilderments and uncertainties in which he finds himself on first landing upon these shores, and up on to his feet in an incredibly short time. Indeed, that potent tongue of hers can almost make the dead alive any day, and the creative lick of the old Scandinavian mother cow is only a large-lettered rendering of the commonest facts.

The horse belongs to the fiery god Mars. He favors war, and is one of its oldest, most available, and most formidable engines. The steed is clothed with thunder, and smells the battle from afar; but the cattle upon a thousand hills denote that peace and plenty bears sway in the land. The neighing of the horse is a call to battle; but the lowing of old Brockleface in the valley brings the golden age again. The savage tribes are never without the horse; the Scythians are all mounted; but the cow would tame and humanize them. When the Indians will cultivate the cow, I shall think their civilization fairly begun. Recently, when the horses were sick with the epizoötic, and the oxen came to the city and helped to do their work, what an Arcadian air again filled the streets! But the dear old oxen,— how awkward and distressed they looked! Juno wept in the face of every

one of them. The horse is a true citizen, and is entirely at home in the paved streets; but the ox,—what a complete embodiment of all rustic and rural things! Slow, deliberate, thick-skinned, powerful, hulky, ruminating, fragrant-breathed, when he came to town the spirit and suggestion of all Georgics and Bucolics came with him. O citizen, was it only a plodding, unsightly brute that went by? Was there no chord in your bosom, long silent, that sweetly vibrated at the sight of that patient Herculean couple? Did you smell no hay or cropped herbage, see no summer pastures with circles of cool shade, hear no voice of herds among the hills? They were very likely the only horses your grandfather ever had. Not much trouble to harness and unharness them. Not much vanity on the road in those days. They did all the work on the early pioneer farm. They were the gods whose rude strength first broke the soil. They could live where the moose and the deer could. If there was no clover or timothy to be had, then the twigs of the basswood and birch would do. Before there were yet fields given up to grass, they found ample pasturage in the woods. Their wide-spreading horns gleamed in the duskiness, and their paths and the paths of the cows became the future roads and highways, or even the streets of great cities.

All the descendants of Odin show a bovine trace, and cherish and cultivate the cow. In Norway she is a great feature. Professor Boyesen describes what he calls the *sæter*, the spring migration of the dairy and dairymaids, with all the appurtenances of butter and cheese making, from the valleys to the distant plains upon the moun-

tains, where the grass keeps fresh and tender till fall. It is the great event of the year in all the rural districts. Nearly the whole family go with the cattle and remain with them. At evening the cows are summoned home with a long horn, called the *loor*, in the hands of the milk-maid. The whole herd comes winding down the mountain-side toward the *sæter* in obedience to the mellow blast.

What were those old Vikings but thick-hided bulls that delighted in nothing so much as goring each other? And has not the charge of beefiness been brought much nearer home to us than that? But about all the northern races there is something that is kindred to cattle in the best sense, — something in their art and literature that is essentially pastoral, sweet-breathed, continent, dispassionate, ruminating, wide-eyed, soft-voiced, — a charm of kine, the virtue of brutes.

The cow belongs more especially to the northern peoples, to the region of the good, green grass. She is the true *grazing* animal. That broad, smooth, always dewy nose of hers is just the suggestion of greensward. She caresses the grass; she sweeps off the ends of the leaves; she reaps it with the soft sickle of her tongue. She crops close, but she does not bruise or devour the turf like the horse. She is the sward's best friend, and will make it thick and smooth as a carpet.

“The turfy mountains where live the nibbling sheep”

are not for her. Her muzzle is too blunt; then she does not *bite* as do the sheep; she has no upper teeth; she *crobs*. But on the lower slopes, and margins, and rich

bottoms, she is at home. Where the daisy and the buttercup and clover bloom, and where corn will grow, is her proper domain. The agriculture of no country can long thrive without her. Not only a large part of the real, but much of the potential, wealth of the land is wrapped up in her.

Then the cow has given us some good words and hints. How could we get along without the parable of the cow that gave a good pail of milk and then kicked it over? One could hardly keep house without it. Or the parable of the cream and the skimmed milk, or of the buttered bread? We know, too, through her aid, what the horns of the dilemma mean, and what comfort there is in the juicy cud of reverie.

I have said the cow has not been of much service to the poets, and yet I remember that Jean Ingelow could hardly have managed her "High Tide" without "White-foot" and "Lightfoot" and "Cusha! Cusha! Cusha! calling;" or Trowbridge his "Evening at the Farm," in which the real call of the American farm-boy of "Co', boss! Co', boss! Co', Co'," makes a very musical refrain.

Tennyson's charming "Milking Song" is another flower of poesy that has sprung up in my divinity's footsteps.

What a variety of individualities a herd of cows presents when you have come to know them all, not only in form and color, but in manners and disposition! Some are timid and awkward, and the butt of the whole herd. Some remind you of deer. Some have an expression in the face like certain persons you have known.

A petted and well-fed cow has a benevolent and gracious look; an ill-used and poorly fed one, a pitiful and forlorn look. Some cows have a masculine or ox expression; others are extremely feminine. The latter are the ones for milk. Some cows will kick like a horse; some jump fences like deer. Every herd has its ringleader, its unruly spirit,—one that plans all the mischief, and leads the rest through the fences into the grain or into the orchard. This one is usually quite different from the master spirit, the “boss of the yard.” The latter is generally the most peaceful and law-abiding cow in the lot, and the least bullying and quarrelsome. But she is not to be trifled with; her will is law; the whole herd give way before her, those that have crossed horns with her and those that have not, but yielded their allegiance without crossing. I remember such a one among my father’s milkers when I was a boy,—a slender-horned, deep-shouldered, large-uddered, dewlapped old cow that we always put first in the long stable, so she could not have a cow on each side of her to forage upon; for the master is yielded to no less in the stanchions than in the yard. She always had the first place anywhere. She had her choice of standing-room in the milking-yard, and when she wanted to lie down there or in the fields the best and softest spot was hers. When the herd were foddered from the stack or barn, or fed with pumpkins in the fall, she was always first served. Her demeanor was quiet but impressive. She never bullied or gored her mates, but literally ruled them with the breath of her nostrils. If any new-comer or ambitious younger cow, however, chafed under her supremacy, she was ever

ready to make good her claims. And with what spirit she would fight when openly challenged! She was a whirlwind of pluck and valor; and not after one defeat or two defeats would she yield the championship. The boss cow, when overcome, seems to brood over her disgrace, and day after day will meet her rival in fierce combat.

A friend of mine, a pastoral philosopher, whom I have consulted in regard to the master cow, thinks it is seldom the case that one rules all the herd, if it number many, but that there is often one that will rule nearly all. "Curiously enough," he says, "a case like this will often occur: No. 1 will whip No. 2; No. 2 whips No. 3; and No. 3 whips No. 1; so around in a circle. This is not a mistake; it is often the case. I remember," he continued, "we once had feeding out of a large bin in the centre of the yard six cows who mastered right through in succession from No. 1 to No. 6; *but No. 6 paid off the score by whipping No. 1.* I often watched them when they were all trying to feed out of the box, and of course trying, dog-in-the-manger fashion, each to prevent any other she could. They would often get in the order to do it very systematically, since they could keep rotating about the box till the chain happened to get broken somewhere, when there would be confusion. Their mastership, you know, like that between nations, is constantly changing. There are always Napoleons who hold their own through many vicissitudes; but the ordinary cow is continually liable to lose her foothold. Some cow she has always despised, and has often sent tossing across the yard at her horns' ends, some pleasant

morning will return the compliment and pay off old scores."

But my own observation has been that, in herds in which there have been no important changes for several years, the question of might gets pretty well settled, and some one cow becomes the acknowledged ruler.

The bully of the yard is never the master, but usually a second or third rate pusher that never loses an opportunity to hook those beneath her, or to gore the masters if she can get them in a tight place. If such a one can get loose in the stable, she is quite certain to do mischief. She delights to pause in the open bars and turn and keep those behind her at bay till she sees a pair of threatening horns pressing toward her, when she quickly passes on. As one cow masters all, so there is one cow that is mastered by all. These are the two extremes of the herd, the head and the tail. Between them are all grades of authority, with none so poor but hath some poorer to do her reverence.

The cow has evidently come down to us from a wild or semi-wild state; perhaps is a descendant of those wild, shaggy cattle of which a small band is still preserved in some nobleman's park in Scotland. Cuvier seems to have been of this opinion. One of the ways in which her wild instincts still crop out is the disposition she shows in spring to hide her calf, — a common practice among the wild herds. Her wild nature would be likely to come to the surface at this crisis if ever; and I have known cows that practiced great secrecy in dropping their calves. As their time approached, they grew restless, a wild and excited look was upon them; and if

left free, they generally set out for the woods, or for some other secluded spot. After the calf is several hours old, and has got upon its feet and had its first meal, the dam by some sign commands it to lie down and remain quiet while she goes forth to feed. If the calf is approached at such time, it plays "possum," pretends to be dead or asleep, till, on finding this ruse does not succeed, it mounts to its feet, bleats loudly and fiercely, and charges desperately upon the intruder. But it recovers from this wild scare in a little while, and never shows signs of it again.

The habit of the cow, also, in eating the placenta, looks to me like a vestige of her former wild instincts, — the instinct to remove everything that would give the wild beasts a clew or a scent, and so attract them to her helpless young.

How wise and sagacious the cows become that run upon the street, or pick their living along the highway! The mystery of gates and bars is at last solved to them. They ponder over them by night, they lurk about them by day, till they acquire a new sense, — till they become *en rapport* with them and know when they are open and unguarded. The garden gate, if it open into the highway at any point, is never out of the mind of these roadsters, or out of their calculations. They calculate upon the chances of its being left open a certain number of times in the season; and if it be but once, and only for five minutes, your cabbage and sweet corn suffer. What villager, or countryman either, has not been awakened at night by the squeaking and crunching of those piratical jaws under the window, or in the direc-

tion of the vegetable patch? I have had the cows, after they had eaten up my garden, break into the stable where my own milcher was tied, and gore her and devour her meal. Yes, life presents but one absorbing problem to the street cow, and that is how to get into your garden. She catches glimpses of it over the fence or through the pickets, and her imagination or epigastrium is inflamed. When the spot is surrounded by a high board fence, I think I have seen her peeping at the cabbages through a knothole. At last she learns to open the gate. It is a great triumph of bovine wit. She does it with her horn or her nose, or maybe with her ever-ready tongue. I doubt if she has ever yet penetrated the mystery of the newer patent fastenings; but the old-fashioned thumb-latch she can see through, give her time enough.

A large, lank, muley or polled cow used to annoy me in this way when I was a dweller in a certain pastoral city. I more than half suspected she was turned in by some one; so one day I watched. Presently I heard the gate-latch rattle; the gate swung open, and in walked the old buffalo. On seeing me she turned and ran like a horse. I then fastened the gate on the inside and watched again. After long waiting the old cow came quickly round the corner and approached the gate. She lifted the latch with her nose. Then, as the gate did not move, she lifted it again and again. Then she gently nudged it. Then, the obtuse gate not taking the hint, she butted it gently, then harder and still harder, till it rattled again. At this juncture I emerged from my hiding-place, when the old villain scampered off with

great precipitation. She knew she was trespassing, and she had learned that there were usually some swift penalties attached to this pastime.

I have owned but three cows and loved but one. That was the first one, Chloe, a bright-red, curly-pated, golden-skinned Devonshire cow, that an ocean steamer landed for me upon the banks of the Potomac one bright May Day many clover summers ago. She came from the north, from the pastoral regions of the Catskills, to graze upon the broad commons of the national capital. I was then the fortunate and happy lessee of an old place with an acre of ground attached, almost within the shadow of the dome of the Capitol. Behind a high but aged and decrepit board fence I indulged my rural and unclerical tastes. I could look up from my homely tasks and cast a potato almost in the midst of that cataract of marble steps that flows out of the north wing of the patriotic pile. Ah! when that creaking and sagging back gate closed behind me in the evening, I was happy; and when it opened for my egress thence in the morning, I was not happy. Inside that gate was a miniature farm, redolent of homely, primitive life, a tumble-down house and stables and implements of agriculture and horticulture, broods of chickens, and growing pumpkins, and a thousand antidotes to the weariness of an artificial life. Outside of it were the marble and iron palaces, the paved and blistering streets, and the high, vacant mahogany desk of a government clerk. In that ancient inclosure I took an earth bath twice a day. I planted myself as deep in the soil as I could, to restore the normal tone and freshness of my system, impaired by the above-

mentioned government mahogany. I have found there is nothing like the earth to draw the various social dis tempers out of one. The blue devils take flight at once if they see you mean to bury them and make compost of them. Emerson intimates that the scholar had better not try to have two gardens; but I could never spend an hour hoeing up dock and red-root and twitch-grass without in some way getting rid of many weeds and fungi, unwholesome growths, that a petty indoor life is forever fostering in my moral and intellectual nature.

But the finishing touch was not given till Chloe came. She was the jewel for which this homely setting waited. My agriculture had some object then. The old gate never opened with such alacrity as when she paused before it. How we waited for her coming! Should I send Dreher, the colored patriarch, for her? No; the master of the house himself should receive Juno at the capital.

“One cask for you,” said the clerk, referring to the steamer bill of lading.

“Then I hope it’s a cask of milk,” I said. “I expected a cow.”

“One cask, it says here.”

“Well, let’s see it; I’ll warrant it has horns and is tied by a rope;” which proved to be the case, for there stood the only object that bore my name, chewing its cud, on the forward deck. How she liked the voyage I could not find out; but she seemed to relish so much the feeling of solid ground beneath her feet once more, that she led me a lively step all the way home. She cut

capers in front of the White House, and tried twice to wind me up in the rope as we passed the Treasury. She kicked up her heels on the broad avenue, and became very coltish as she came under the walls of the Capitol. But that night the long-vacant stall in the old stable was filled, and the next morning the coffee had met with a change of heart. I had to go out twice with the lantern and survey my treasure before I went to bed. Did she not come from the delectable mountains, and did I not have a sort of filial regard for her as toward my foster-mother?

This was during the Arcadian age at the capital, before the easy-going Southern ways had gone out and the prim new Northern ways had come in, and when the domestic animals were treated with distinguished consideration and granted the freedom of the city. There was a charm of cattle in the street and upon the commons; goats cropped your rose-bushes through the pickets, and nooned upon your front porch; and pigs dreamed Arcadian dreams under your garden fence, or languidly frescoed it with pigments from the nearest pool. It was a time of peace; it was the poor man's golden age. Your cow, your goat, your pig, led vagrant, wandering lives, and picked up a subsistence wherever they could, like the bees, which was almost everywhere. Your cow went forth in the morning and came home fraught with milk at night, and you never troubled yourself where she went or how far she roamed.

Chloe took very naturally to this kind of life. At first I had to go with her a few times and pilot her to the nearest commons, and then I left her to her own wit,

which never failed her. What adventures she had, what acquaintances she made, how far she wandered, I never knew. I never came across her in my walks or rambles. Indeed, on several occasions I thought I would look her up and see her feeding in national pastures, but I never could find her. There were plenty of cows, but they were all strangers. But punctually, between four and five o'clock in the afternoon, her white horns would be seen tossing above the gate and her impatient low be heard. Sometimes, when I turned her forth in the morning, she would pause and apparently consider which way she would go. Should she go toward Kendall Green to-day, or follow the Tiber, or over by the Big Spring, or out around Lincoln Hospital? She seldom reached a conclusion till she had stretched forth her neck and blown a blast on her trumpet that awoke the echoes in the very lantern on the dome of the Capitol. Then, after one or two licks, she would disappear around the corner. Later in the season, when the grass was parched or poor on the commons, and the corn and cabbage tempting in the garden, Chloe was loath to depart in the morning, and her deliberations were longer than ever, and very often I had to aid her in coming to a decision.

For two summers she was a wellspring of pleasure and profit in my farm of one acre, when, in an evil moment, I resolved to part with her and try another. In an evil moment I say, for from that time my luck in cattle left me. The goddess never forgave me the execution of that rash and cruel resolve.

The day is indelibly stamped on my memory when I exposed my Chloe for sale in the public market-place.

It was in November, a bright, dreamy, Indian summer day. A sadness oppressed me, not unmixed with guilt and remorse. An old Irish woman came to the market also with her pets to sell, a sow and five pigs, and took up a position next to me. We condoled with each other; we bewailed the fate of our darlings together; we berated in chorus the white-aproned but blood-stained fraternity who prowled about us. When she went away for a moment I minded the pigs, and when I strolled about she minded my cow. How shy the innocent beast was of those carnal marketmen! How she would shrink away from them! When they put out a hand to feel her condition she would "scrooch" down her back, or bend this way or that, as if the hand were a branding-iron. So long as I stood by her head she felt safe — deluded creature! — and chewed the cud of sweet content; but the moment I left her side she seemed filled with apprehension, and followed me with her eyes, lowing softly and entreatingly till I returned.

At last the money was counted out for her, and her rope surrendered to the hand of another. How that last look of alarm and incredulity, which I caught as I turned for a parting glance, went to my heart!

Her stall was soon filled, or partly filled, and this time with a native, — a specimen of what may be called the cornstalk breed of Virginia; a slender, furtive, long-eared heifer just verging on cowhood, that in spite of my best efforts would wear a pinched and hungry look. She evidently inherited a humped back. It was a family trait, and evidence of the purity of her blood. For the native blooded cow of Virginia, from

shivering over half rations of cornstalks in the open air during those bleak and windy winters, and roaming over those parched fields in summer, has come to have some marked features. For one thing, her pedal extremities seem lengthened; for another, her udder does not impede her traveling; for a third, her backbone inclines strongly to the curve; then, she despiseth hay. This last is a sure test. Offer a thoroughbred Virginia cow hay, and she will laugh in your face; but rattle the husks or shucks, and she knows you to be her friend.

The new-comer even declined corn-meal at first. She eyed it furtively, then sniffed it suspiciously, but finally discovered that it bore some relation to her native "shucks," when she fell to eagerly.

I cherish the memory of this cow, however, as the most affectionate brute I ever knew. Being deprived of her calf, she transferred her affections to her master, and would fain have made a calf of him, lowing in the most piteous and inconsolable manner when he was out of her sight, hardly forgetting her grief long enough to eat her meal, and entirely neglecting her beloved husks. Often in the middle of the night she would set up that sonorous lamentation, and continue it till sleep was chased from every eye in the household. This generally had the effect of bringing the object of her affection before her, but in a mood anything but filial or comforting. Still, at such times a kick seemed a comfort to her, and she would gladly have kissed the rod that was the instrument of my midnight wrath.

But her tender star was destined soon to a fatal eclipse. Being tied with too long a rope on one occasion

during my temporary absence, she got her head into the meal-barrel, and stopped not till she had devoured nearly half a bushel of dry meal. The singularly placid and benevolent look that beamed from the meal-smeared face when I discovered her was something to be remembered. For the first time, also, her spinal column came near assuming a horizontal line.

But the grist proved too much for her frail mill, and her demise took place on the third day, not of course without some attempt to relieve her on my part. I gave her, as is usual in such emergencies, everything I "could think of," and everything my neighbors could think of, besides some fearful prescriptions which I obtained from a German veterinary surgeon, but to no purpose. I imagined her poor maw distended and inflamed with the baking sodden mass which no physic could penetrate or enliven.

Thus ended my second venture in live-stock. My third, which followed sharp upon the heels of this disaster, was scarcely more of a success. This time I led to the altar a buffalo cow, as they call the "muley" down South, — a large, spotted, creamy-skinned cow, with a fine udder, that I persuaded a Jew drover to part with for ninety dollars. "Pag like a dish rack (rag)," said he, pointing to her udder after she had been milked. "You vill come pack and gif me the udder ten tollar" (for he had demanded an even hundred), he continued, "after you have had her a couple of days." True, I felt like returning to him after a "gouple of days," but not to pay the other ten dollars. The cow proved to be as blind as a bat, though capable of counterfeiting the act

of seeing to perfection. For did she not lift up her head and follow with her eyes a dog that scaled the fence and ran through the other end of the lot, and the next moment dash my hopes thus raised by trying to walk over a locust-tree thirty feet high? And when I set the bucket before her containing her first mess of meal, she missed it by several inches, and her nose brought up against the ground. Was it a kind of far-sightedness and near blindness? That was it, I think; she had genius, but not talent; she could see the man in the moon, but was quite oblivious to the man immediately in her front. Her eyes were telescopic and required a long range.

As long as I kept her in the stall, or confined to the inclosure, this strange eclipse of her sight was of little consequence. But when spring came, and it was time for her to go forth and seek her livelihood in the city's waste places, I was embarrassed. Into what remote corners or into what *terra incognita* might she not wander! There was little doubt but that she would drift around home in the course of the summer, or perhaps as often as every week or two; but could she be trusted to find her way back every night? Perhaps she could be taught. Perhaps her other senses were acute enough to compensate in a measure for her defective vision. So I gave her lessons in the topography of the country. I led her forth to graze for a few hours each day and led her home again. Then I left her to come home alone, which feat she accomplished very encouragingly. She came feeling her way along, stepping very high, but apparently a most diligent and interested sight-seer.

But she was not sure of the right house when she got to it, though she stared at it very hard.

Again I turned her forth, and again she came back, her telescopic eyes apparently of some service to her. On the third day, there was a fierce thunder-storm late in the afternoon, and old Buffalo did not come home. It had evidently scattered and bewildered what little wits she had. Being barely able to navigate those streets on a calm day, what could she be expected to do in a tempest?

After the storm had passed, and near sundown, I set out in quest of her, but could get no clew. I heard that two cows had been struck by lightning about a mile out on the commons. My conscience instantly told me that one of them was mine. It would be a fit closing of the third act of this pastoral drama. Thitherward I bent my steps, and there upon the smooth plain I beheld the scorched and swollen forms of two cows slain by thunderbolts, but neither of them had ever been mine.

The next day I continued the search, and the next, and the next. Finally I hoisted an umbrella over my head, for the weather had become hot, and set out deliberately and systematically to explore every foot of open common on Capitol Hill. I tramped many miles, and found every man's cow but my own,—some twelve or fifteen hundred, I should think. I saw many vagrant boys and Irish and colored women, nearly all of whom had seen a buffalo cow that very day that answered exactly to my description, but in such diverse and widely separate places that I knew it was no cow of mine. And it was astonishing how many times I was

myself deceived; how many rumps or heads, or line backs or white flanks, I saw peeping over knolls, or from behind fences or other objects, that could belong to no cow but mine!

Finally I gave up the search, concluded the cow had been stolen, and advertised her, offering a reward. But days passed, and no tidings were obtained. Hope began to burn pretty low, — was indeed on the point of going out altogether, — when one afternoon, as I was strolling over the commons (for in my walks I still hovered about the scenes of my lost milcher), I saw the rump of a cow, over a grassy knoll, that looked familiar. Coming nearer, the beast lifted up her head; and, behold! it was she! only a few squares from home, where doubtless she had been most of the time. I had overshot the mark in my search. I had ransacked the far-off, and had neglected the near-at-hand, as we are so apt to do. But she was ruined as a milcher, and her history thenceforward was brief and touching!

STRAWBERRIES

WAS it old Dr. Parr who said or sighed in his last illness, "Oh, if I can only live till strawberries come!" The old scholar imagined that, if he could weather it till then, the berries would carry him through. No doubt he had turned from the drugs and the nostrums, or from the hateful food, to the memory of the pungent, penetrating, and unspeakably fresh quality of the strawberry with the deepest longing. The very thought of these crimson lobes, embodying as it were the first glow and ardor of the young summer, and with their power to unsheathe the taste and spur the flagging appetite, made life seem possible and desirable to him.

The strawberry is always the hope of the invalid, and sometimes, no doubt, his salvation. It is the first and finest relish among fruits, and well merits Dr. Boteler's memorable saying, that "doubtless God could have made a better berry, but doubtless God never did."

On the threshold of summer, Nature proffers us this her virgin fruit; more rich and sumptuous are to follow, but the wild delicacy and fillip of the strawberry are never repeated, — that keen feathered edge greets the tongue in nothing else.

Let me not be afraid of overpraising it, but probe and probe for words to hint its surprising virtues. We may well celebrate it with festivals and music. It has that indescribable quality of all first things, — that shy,

uncloying, provoking barbed sweetness. It is eager and sanguine as youth. It is born of the copious dews, the fragrant nights, the tender skies, the plentiful rains of the early season. The singing of birds is in it, and the health and frolic of lusty Nature. It is the product of liquid May touched by the June sun. It has the tartness, the briskness, the unruliness of spring, and the aroma and intensity of summer.

Oh, the strawberry days! how vividly they come back to one! The smell of clover in the fields, of blooming rye on the hills, of the wild grape beside the woods, and of the sweet honeysuckle and the spiraea about the house. The first hot, moist days. The daisies and the buttercups; the songs of the birds, their first reckless jollity and love-making over; the full tender foliage of the trees; the bees swarming, and the air strung with resonant musical chords. The time of the sweetest and most succulent grass, when the cows come home with aching udders. Indeed, the strawberry belongs to the juiciest time of the year.

What a challenge it is to the taste! how it bites back again! and is there any other sound like the snap and crackle with which it salutes the ear on being plucked from the stems? It is a threat to one sense that the other is soon to verify. It snaps to the ear as it smacks to the tongue. All other berries are tame beside it.

The plant is almost an evergreen; it loves the coverlid of the snow, and will keep fresh through the severest winters with a slight protection. The frost leaves its virtues in it. The berry is a kind of vegetable snow. How cool, how tonic, how melting, and how perishable! It

is almost as easy to keep frost. Heat kills it, and sugar quickly breaks up its cells.

Is there anything like the odor of strawberries? The next best thing to tasting them is to smell them; one may put his nose to the dish while the fruit is yet too rare and choice for his fingers. Touch not and taste not, but take a good smell and go mad! Last fall I potted some of the Downer, and in the winter grew them in the house. In March the berries were ripe, only four or five on a plant, just enough, all told, to make one consider whether it were not worth while to kill off the rest of the household, so that the berries need not be divided. But if every tongue could not have a feast, every nose banqueted daily upon them. They filled the house with perfume. The Downer is remarkable in this respect. Grown in the open field, it surpasses in its odor any strawberry of my acquaintance. And it is scarcely less agreeable to the taste. It is a very beautiful berry to look upon, round, light pink, with a delicate, fine-grained expression. Some berries shine, the Downer glows as if there were a red bloom upon it. Its core is firm and white, its skin thin and easily bruised, which makes it a poor market berry, but, with its high flavor and productiveness, an admirable one for home use. It seems to be as easily grown as the Wilson, while it is much more palatable. The great trouble with the Wilson, as everybody knows, is its rank acidity. When it first comes, it is difficult to eat it without making faces. It is crabbed and acrimonious. Like some persons, the Wilson will not ripen and sweeten till its old age. Its largest and finest crop, if allowed to remain on the

vines, will soften and fail unregenerated, or with all its sins upon it. But wait till toward the end of the season, after the plant gets over its hurry and takes time to ripen its fruit. The berry will then face the sun for days, and, if the weather is not too wet, instead of softening will turn dark and grow rich. Out of its crabbedness and spitefulness come the finest, choicest flavors. It is an astonishing berry. It lays hold of the taste in a way that the aristocratic berries, like the Jocunda or the Triumph, cannot approximate to. Its quality is as penetrating as that of ants and wasps, but sweet. It is, indeed, a wild bee turned into a berry, with the sting mollified and the honey disguised. A quart of these rare-ripes I venture to say contains more of the peculiar virtue and excellence of the strawberry kind than can be had in twice the same quantity of any other cultivated variety. Take these berries in a bowl of rich milk with some bread, — ah, what a dish! — too good to set before a king! I suspect this was the food of Adam in Paradise, only Adam did not have the Wilson strawberry; he had the wild strawberry that Eve plucked in their hill-meadow and “hulled” with her own hands, and that, take it all in all, even surpasses the late-ripened Wilson.

Adam is still extant in the taste and the appetite of most country boys; lives there a country boy who does not like wild strawberries and milk, — yea, prefer it to any other known dish? I am not thinking of a dessert of strawberries and cream; this the city boy may have, too, after a sort; but bread-and-milk, with the addition of wild strawberries, is peculiarly a country dish, and is

to the taste what a wild bird's song is to the ear. When I was a lad, and went afield with my hoe or with the cows, during the strawberry season, I was sure to return at meal-time with a lining of berries in the top of my straw hat. They were my daily food, and I could taste the liquid and gurgling notes of the bobolink in every spoonful of them; and to this day, to make a dinner or supper off a bowl of milk with bread and strawberries, — plenty of strawberries, — well, is as near to being a boy again as I ever expect to come. The golden age draws sensibly near. Appetite becomes a kind of delicious thirst, — a gentle and subtle craving of all parts of the mouth and throat, — and those nerves of taste that occupy, as it were, a back seat, and take little cognizance of grosser foods, come forth, and are played upon and set vibrating. Indeed, I think, if there is ever rejoicing throughout one's alimentary household, — if ever that much-abused servant the stomach says Amen, or those faithful handmaidens the liver and spleen nudge each other delightedly, it must be when one on a torrid summer day passes by the solid and carnal dinner for this simple Arcadian dish.

The wild strawberry, like the wild apple, is spicy and high-flavored, but, unlike the apple, it is also mild and delicious. It has the true rustic sweetness and piquancy. What it lacks in size, when compared with the garden berry, it makes up in intensity. It is never dropsical or overgrown, but firm-fleshed and hardy. Its great enemies are the plow, gypsum, and the horse-rake. It dislikes a limestone soil, but seems to prefer the detritus of the stratified rock. Where the sugar maple abounds,

I have always found plenty of wild strawberries. We have two kinds, — the wood berry and the field berry. The former is as wild as a partridge. It is found in open places in the woods and along the borders, growing beside stumps and rocks, never in abundance, but very sparsely. It is small, cone-shaped, dark red, shiny, and pimply. It looks woody, and tastes so. It has never reached the table, nor made the acquaintance of cream. A quart of them, at a fair price for human labor, would be worth their weight in silver at least. (Yet a careful observer writes me that in certain sections in the western part of New York they are very plentiful.)

Ovid mentions the wood strawberry, which would lead one to infer that they were more abundant in his time and country than in ours.

This is, perhaps, the same as the alpine strawberry, which is said to grow in the mountains of Greece, and thence northward. This was probably the first variety cultivated, though our native species would seem as unpromising a subject for the garden as club-moss or wintergreens.

Of the field strawberry there are a great many varieties, — some growing in meadows, some in pastures, and some upon mountain-tops. Some are round, and stick close to the calyx or hull; some are long and pointed, with long, tapering necks. These usually grow upon tall stems. They are, indeed, of the slim, linear kind. Your corpulent berry keeps close to the ground; its stem and foot-stalk are short, and neck it has none. Its color is deeper than that of its tall brother, and of course it has more juice. You are more apt to find the tall varie-

ties upon knolls in low, wet meadows, and again upon mountain-tops, growing in tussocks of wild grass about the open summits. These latter ripen in July, and give one his last taste of strawberries for the season.

But the favorite haunt of the wild strawberry is an uplying meadow that has been exempt from the plow for five or six years, and that has little timothy and much daisy. When you go a-berrying, turn your steps toward the milk-white meadows. The slightly bitter odor of the daisies is very agreeable to the smell, and affords a good background for the perfume of the fruit. The strawberry cannot cope with the rank and deep-rooted clover, and seldom appears in a field till the clover has had its day. But the daisy with its slender stalk does not crowd or obstruct the plant, while its broad white flower is like a light parasol that tempers and softens the too strong sunlight. Indeed, daisies and strawberries are generally associated. Nature fills her dish with the berries, then covers them with the white and yellow of milk and cream, thus suggesting a combination we are quick to follow. Milk alone, after it loses its animal heat, is a clod, and begets torpidity of the brain; the berries lighten it, give wings to it, and one is fed as by the air he breathes or the water he drinks.

Then the delight of "picking" the wild berries! It is one of the fragrant memories of boyhood. Indeed, for boy or man to go a-berrying in a certain pastoral country I know of, where a passer-by along the highway is often regaled by a breeze loaded with a perfume of the o'er-ripe fruit, is to get nearer to June than by almost any course I know of. Your errand is so private

and confidential! You stoop low. You part away the grass and the daisies, and would lay bare the inmost secrets of the meadow. Everything is yet tender and succulent; the very air is bright and new; the warm breath of the meadow comes up in your face; to your knees you are in a sea of daisies and clover; from your knees up, you are in a sea of solar light and warmth. Now you are prostrate like a swimmer, or like a surf-bather reaching for pebbles or shells, the white and green spray breaks above you; then, like a devotee before a shrine or naming his beads, your rosary strung with luscious berries; anon you are a grazing Nebuchadnezzar, or an artist taking an inverted view of the landscape.

The birds are alarmed by your close scrutiny of their domain. They hardly know whether to sing or to cry, and do a little of both. The bobolink follows you and circles above and in advance of you, and is ready to give you a triumphal exit from the field, if you will only depart.

“Ye boys that gather flowers and strawberries,
Lo, hid within the grass, an adder lies,”

Warton makes Virgil sing; and Montaigne, in his “Journey to Italy,” says: “The children very often are afraid, on account of the snakes, to go and pick the strawberries that grow in quantities on the mountains and among bushes.” But there is no serpent here, — at worst, only a bumblebee’s or yellow-jacket’s nest. You soon find out the spring in the corner of the field under the beechen tree. While you wipe your brow and thank the Lord for spring water, you glance at the initials in

the bark, some of them so old that they seem runic and legendary. You find out, also, how gregarious the strawberry is,—that the different varieties exist in little colonies about the field. When you strike the outskirts of one of these plantations, how quickly you work toward the centre of it, and then from the centre out, then circumnavigate it, and follow up all its branchings and windings!

Then the delight in the abstract and in the concrete of strolling and lounging about the June meadows; of lying in pickle for half a day or more in this pastoral sea, laved by the great tide, shone upon by the virile sun, drenched to the very marrow of your being with the warm and wooing influences of the young summer!

I was a famous berry-picker when a boy. It was near enough to hunting and fishing to enlist me. Mother would always send me in preference to any of the rest of the boys. I got the biggest berries and the most of them. There was something of the excitement of the chase in the occupation, and something of the charm and preciousness of game about the trophies. The pursuit had its surprises, its expectancies, its sudden disclosures,—in fact, its uncertainties. I went forth adventurously. I could wander free as the wind. Then there were moments of inspiration, for it always seemed a felicitous stroke to light upon a particularly fine spot, as it does when one takes an old and wary trout. You discovered the game where it was hidden. Your genius prompted you. Another had passed that way and had missed the prize. Indeed, the successful berry-picker, like Walton's angler, is born, not made. It is only an-

other kind of angling. In the same field one boy gets big berries and plenty of them ; another wanders up and down, and finds only a few little ones. He cannot see them ; he does not know how to divine them where they lurk under the leaves and vines. The berry-grower knows that in the cultivated patch his pickers are very unequal, the baskets of one boy or girl having so inferior a look that it does not seem possible they could have been filled from the same vines with certain others. But neither blunt fingers nor blunt eyes are hard to find ; and as there are those who can see nothing clearly, so there are those who can touch nothing deftly or gently.

The cultivation of the strawberry is thought to be comparatively modern. The ancients appear to have been a carnivorous race : they gorged themselves with meat ; while the modern man makes larger and larger use of fruits and vegetables, until this generation is doubtless better fed than any that has preceded it. The strawberry and the apple, and such vegetables as celery, ought to lengthen human life, — at least to correct its biliousness and make it more sweet and sanguine.

The first impetus to strawberry culture seems to have been given by the introduction of our field berry (*Fragaria Virginiana*) into England in the seventeenth century, though not much progress was made till the eighteenth. This variety is much more fragrant and aromatic than the native berry of Europe, though less so in that climate than when grown here. Many new seedlings sprang from it, and it was the prevailing berry in English and French gardens, says Fuller, until the South American species, *grandiflora*, was introduced and sup-

planted it. This berry is naturally much larger and sweeter, and better adapted to the English climate, than our *Virginiana*. Hence the English strawberries of to-day surpass ours in these respects, but are wanting in that aromatic pungency that characterizes most of our berries.

The Jocunda, Triumph, Victoria, are foreign varieties of the Grandiflora species; while the Hovey, the Boston Pine, the Downer, are natives of this country.

The strawberry, in the main, repeats the form of the human heart, and perhaps of all the small fruits known to man none other is so deeply and fondly cherished, or hailed with such universal delight, as this lowly but youth-renewing berry.

SPECKLED TROUT

I

THE legend of the wary trout, hinted at in the last sketch, is to be further illustrated in this and some following chapters. We shall get at more of the meaning of those dark water-lines, and I hope, also, not entirely miss the significance of the gold and silver spots and the glancing iridescent hues. The trout is dark and obscure above, but behind this foil there are wondrous tints that reward the believing eye. Those who seek him in his wild, remote haunts are quite sure to get the full force of the sombre and uninviting aspects, — the wet, the cold, the toil, the broken rest, and the huge, savage, uncompromising nature, — but the true angler sees farther than these, and is never thwarted of his legitimate reward by them.

I have been a seeker of trout from my boyhood, and on all the expeditions in which this fish has been the ostensible purpose I have brought home more game than my creel showed. In fact, in my mature years I find I got more of nature into me, more of the woods, the wild, nearer to bird and beast, while threading my native streams for trout, than in almost any other way. It furnished a good excuse to go forth; it pitched one in the right key; it sent one through the fat and marrowy places of field and wood. Then the fisherman has a harmless, preoccupied look; he is a kind of vagrant that

nothing fears. He blends himself with the trees and the shadows. All his approaches are gentle and indirect. He times himself to the meandering, soliloquizing stream; its impulse bears him along. At the foot of the waterfall he sits sequestered and hidden in its volume of sound. The birds know he has no designs upon them, and the animals see that his mind is in the creek. His enthusiasm anneals him, and makes him pliable to the scenes and influences he moves among.

Then what acquaintance he makes with the stream! He addresses himself to it as a lover to his mistress; he woos it and stays with it till he knows its most hidden secrets. It runs through his thoughts not less than through its banks there; he feels the fret and thrust of every bar and boulder. Where it deepens, his purpose deepens; where it is shallow, he is indifferent. He knows how to interpret its every glance and dimple; its beauty haunts him for days.

I am sure I run no risk of overpraising the charm and attractiveness of a well-fed trout stream, every drop of water in it as bright and pure as if the nymphs had brought it all the way from its source in crystal goblets, and as cool as if it had been hatched beneath a glacier. When the heated and soiled and jaded refugee from the city first sees one, he feels as if he would like to turn it into his bosom and let it flow through him a few hours, it suggests such healing freshness and newness. How his roily thoughts would run clear! how the sediment would go downstream! Could he ever have an impure or an unwholesome wish afterward? The next best thing he can do is to tramp along its banks and sur-

render himself to its influence. If he reads it intently enough, he will, in a measure, be taking it into his mind and heart, and experiencing its salutary ministrations.

Trout streams coursed through every valley my boyhood knew. I crossed them, and was often lured and detained by them, on my way to and from school. We bathed in them during the long summer noons, and felt for the trout under their banks. A holiday was a holiday indeed that brought permission to go fishing over on Rose's Brook, or up Hardscrabble, or in Meeker's Hollow,—all-day trips, from morning till night, through meadows and pastures and beechen woods, wherever the shy, limpid stream led. What an appetite it developed! a hunger that was fierce and aboriginal, and that the wild strawberries we plucked as we crossed the hill teased rather than allayed. When but a few hours could be had, gained perhaps by doing some piece of work about the farm or garden in half the allotted time, the little creek that headed in the paternal domain was handy; when half a day was at one's disposal, there were the hemlocks, less than a mile distant, with their loitering, meditative, log-impeded stream and their dusky, fragrant depths. Alert and wide-eyed, one picked his way along, startled now and then by the sudden bursting-up of the partridge, or by the whistling wings of the "dropping snipe," pressing through the brush and the briars, or finding an easy passage over the trunk of a prostrate tree, carefully letting his hook down through some tangle into a still pool, or standing in some high, sombre avenue and watching his line float in and out amid the moss-covered

A Trout Stream



boulders. In my first essayings I used to go to the edge of these hemlocks, seldom dipping into them beyond the first pool where the stream swept under the roots of two large trees. From this point I could look back into the sunlit fields where the cattle were grazing; beyond, all was gloom and mystery; the trout were black, and to my young imagination the silence and the shadows were blacker. But gradually I yielded to the fascination and penetrated the woods farther and farther on each expedition, till the heart of the mystery was fairly plucked out. During the second or third year of my piscatorial experience I went through them, and through the pasture and meadow beyond, and through another strip of hemlocks, to where the little stream joined the main creek of the valley.

In June, when my trout fever ran pretty high, and an auspicious day arrived, I would make a trip to a stream a couple of miles distant, that came down out of a comparatively new settlement. It was a rapid mountain brook presenting many difficult problems to the young angler, but a very enticing stream for all that, with its two saw-mill dams, its pretty cascades, its high, shelving rocks sheltering the mossy nests of the phœbe-bird, and its general wild and forbidding aspects.

But a meadow brook was always a favorite. The trout like meadows; doubtless their food is more abundant there, and, usually, the good hiding-places are more numerous. As soon as you strike a meadow the character of the creek changes: it goes slower and lies deeper; it tarries to enjoy the high, cool banks and to half hide beneath them; it loves the willows, or rather

the willows love it and shelter it from the sun ; its spring runs are kept cool by the overhanging grass, and the heavy turf that faces its open banks is not cut away by the sharp hoofs of the grazing cattle. Then there are the bobolinks and the starlings and the meadowlarks, always interested spectators of the angler ; there are also the marsh marigolds, the buttercups, or the spotted lilies, and the good angler is always an interested spectator of them. In fact, the patches of meadow land that lie in the angler's course are like the happy experiences in his own life, or like the fine passages in the poem he is reading ; the pasture oftener contains the shallow and monotonous places. In the small streams the cattle scare the fish, and soil their element and break down their retreats under the banks. Woodland alternates the best with meadow : the creek loves to burrow under the roots of a great tree, to scoop out a pool after leaping over the prostrate trunk of one, and to pause at the foot of a ledge of moss-covered rocks, with ice-cold water dripping down. How straight the current goes for the rock ! Note its corrugated, muscular appearance ; it strikes and glances off, but accumulates, deepens with well-defined eddies above and to one side ; on the edge of these the trout lurk and spring upon their prey.

The angler learns that it is generally some obstacle or hindrance that makes a deep place in the creek, as in a brave life ; and his ideal brook is one that lies in deep, well-defined banks, yet makes many a shift from right to left, meets with many rebuffs and adventures, hurled back upon itself by rocks, waylaid by snags and trees, tripped up by precipices, but sooner or later re-

posing under meadow banks, deepening and eddying beneath bridges, or prosperous and strong in some level stretch of cultivated land with great elms shading it here and there.

But I early learned that from almost any stream in a trout country the true angler could take trout, and that the great secret was this, that, whatever bait you used, worm, grasshopper, grub, or fly, there was one thing you must always put upon your hook, namely, your heart: when you bait your hook with your heart the fish always bite; they will jump clear from the water after it; they will dispute with each other over it; it is a morsel they love above everything else. With such bait I have seen the born angler (my grandfather was one) take a noble string of trout from the most unpromising waters, and on the most unpromising day. He used his hook so coyly and tenderly, he approached the fish with such address and insinuation, he divined the exact spot where they lay: if they were not eager, he humored them and seemed to steal by them; if they were playful and coquettish, he would suit his mood to theirs; if they were frank and sincere, he met them halfway; he was so patient and considerate, so entirely devoted to pleasing the critical trout, and so successful in his efforts,—surely his heart was upon his hook, and it was a tender, unctuous heart, too, as that of every angler is. How nicely he would measure the distance! how dexterously he would avoid an overhanging limb or bush and drop the line exactly in the right spot! Of course there was a pulse of feeling and sympathy to the extremity of that line. If your heart is a stone, however, or an empty

husk, there is no use to put it upon your hook; it will not tempt the fish; the bait must be quick and fresh. Indeed, a certain quality of youth is indispensable to the successful angler, a certain unworldliness and readiness to invest yourself in an enterprise that does n't pay in the current coin. Not only is the angler, like the poet, born and not made, as Walton says, but there is a deal of the poet in him, and he is to be judged no more harshly; he is the victim of his genius: those wild streams, how they haunt him! he will play truant to dull care, and flee to them; their waters impart somewhat of their own perpetual youth to him. My grandfather when he was eighty years old would take down his pole as eagerly as any boy, and step off with wonderful elasticity toward the beloved streams; it used to try my young legs a good deal to follow him, specially on the return trip. And no poet was ever more innocent of worldly success or ambition. For, to paraphrase Tennyson, —

"Lusty trout to him were scrip and share,
And babbling waters more than cent for cent."

He laid up treasures, but they were not in this world. In fact, though the kindest of husbands, I fear he was not what the country people call a "good provider," except in providing trout in their season, though it is doubtful if there was always fat in the house to fry them in. But he could tell you they were worse off than that at Valley Forge, and that trout, or any other fish, were good roasted in the ashes under the coals. He had the Walton requisite of loving quietness and contemplation,

and was devout withal. Indeed, in many ways he was akin to those Galilee fishermen who were called to be fishers of men. How he read the Book and pored over it, even at times, I suspect, nodding over it, and laying it down only to take up his rod, over which, unless the trout were very dilatory and the journey very fatiguing, he never nodded!

II

The Delaware is one of our minor rivers, but it is a stream beloved of the trout. Nearly all its remote branches head in mountain springs, and its collected waters, even when warmed by the summer sun, are as sweet and wholesome as dew swept from the grass. The Hudson wins from it two streams that are fathered by the mountains from whose loins most of its beginnings issue, namely, the Rondout and the Esopus. These swell a more illustrious current than the Delaware, but the Rondout, one of the finest trout streams in the world, makes an uncanny alliance before it reaches its destination, namely, with the malarious Wallkill.

In the same nest of mountains from which they start are born the Neversink and the Beaverkill, streams of wondrous beauty that flow south and west into the Delaware. From my native hills I could catch glimpses of the mountains in whose laps these creeks were cradled, but it was not till after many years, and after dwelling in a country where trout are not found, that I returned to pay my respects to them as an angler.

My first acquaintance with the Neversink was made in company with some friends in 1869. We passed up the Valley of the Big Ingin, marveling at its copious ice-cold springs, and its immense sweep of heavy-timbered mountain-sides. Crossing the range at its head, we struck the Neversink quite unexpectedly about the middle of the afternoon, at a point where it was a good-sized trout stream. It proved to be one of those black mountain brooks born of innumerable ice-cold springs, nourished in the shade, and shod, as it were, with thick-matted moss, that every camper-out remembers. The fish are as black as the stream and very wild. They dart from beneath the fringed rocks, or dive with the hook into the dusky depths, — an integral part of the silence and the shadows. The spell of the moss is over all. The fisherman's tread is noiseless, as he leaps from stone to stone and from ledge to ledge along the bed of the stream. How cool it is! He looks up the dark, silent defile, hears the solitary voice of the water, sees the decayed trunks of fallen trees bridging the stream, and all he has dreamed, when a boy, of the haunts of beasts of prey — the crouching feline tribes, especially if it be near nightfall and the gloom already deepening in the woods — comes freshly to mind, and he presses on, wary and alert, and speaking to his companions in low tones.

After an hour or so the trout became less abundant, and with nearly a hundred of the black sprites in our baskets we turned back. Here and there I saw the abandoned nests of the pigeons, sometimes half a dozen in one tree. In a yellow birch which the floods had uprooted,

a number of nests were still in place, little shelves or platforms of twigs loosely arranged, and affording little or no protection to the eggs or the young birds against inclement weather.

Before we had reached our companions the rain set in again and forced us to take shelter under a balsam. When it slackened we moved on and soon came up with Aaron who had caught his first trout, and, considerably drenched, was making his way toward camp, which one of the party had gone forward to build. After traveling less than a mile, we saw a smoke struggling up through the dripping trees, and in a few moments were all standing round a blazing fire. But the rain now commenced again, and fairly poured down through the trees, rendering the prospect of cooking and eating our supper there in the woods, and of passing the night on the ground without tent or cover of any kind, rather disheartening. We had been told of a bark shanty a couple of miles farther down the creek, and thitherward we speedily took up our line of march. When we were on the point of discontinuing the search, thinking we had been misinformed or had passed it by, we came in sight of a bark-peeling, in the midst of which a small log house lifted its naked rafters toward the now breaking sky. It had neither floor nor roof, and was less inviting on first sight than the open woods. But a board partition was still standing, out of which we built a rude porch on the east side of the house, large enough for us all to sleep under if well packed, and eat under if we stood up. There was plenty of well-seasoned timber lying about, and a fire was soon burning in front of our quarters that

made the scene social and picturesque, especially when the frying-pans were brought into requisition, and the coffee, in charge of Aaron, who was an artist in this line, mingled its aroma with the wild-wood air. At dusk a balsam was felled, and the tips of the branches used to make a bed, which was more fragrant than soft; hemlock is better, because its needles are finer and its branches more elastic.

There was a spirt or two of rain during the night, but not enough to find out the leaks in our roof. It took the shower or series of showers of the next day to do that. They commenced about two o'clock in the afternoon. The forenoon had been fine, and we had brought into camp nearly three hundred trout; but before they were half dressed, or the first panfuls fried, the rain set in. First came short, sharp dashes, then a gleam of treacherous sunshine, followed by more and heavier dashes. The wind was in the southwest, and to rain seemed the easiest thing in the world. From fitful dashes to a steady pour the transition was natural. We stood huddled together, stark and grim, under our cover, like hens under a cart. The fire fought bravely for a time, and retaliated with sparks and spiteful tongues of flame; but gradually its spirit was broken, only a heavy body of coal and half-consumed logs in the centre holding out against all odds. The simmering fish were soon floating about in a yellow liquid that did not look in the least appetizing. Point after point gave way in our cover, till standing between the drops was no longer possible. The water coursed down the underside of the boards and dripped in our necks and formed puddles

on our hat-brims. We shifted our guns and traps and viands, till there was no longer any choice of position, when the loaves and the fishes, the salt and the sugar, the pork and the butter, shared the same watery fate. The fire was gasping its last. Little rivulets coursed about it, and bore away the quenched but steaming coals on their bosoms. The spring run in the rear of our camp swelled so rapidly that part of the trout that had been hastily left lying on its banks again found themselves quite at home. For over two hours the floods came down. About four o'clock Orville, who had not yet come from the day's sport, appeared. To say Orville was wet is not much; he was better than that, — he had been washed and rinsed in at least half a dozen waters, and the trout that he bore dangling at the end of a string hardly knew that they had been out of their proper element.

But he brought welcome news. He had been two or three miles down the creek, and had seen a log building, — whether house or stable he did not know, but it had the appearance of having a good roof, which was inducement enough for us instantly to leave our present quarters. Our course lay along an old wood-road, and much of the time we were to our knees in water. The woods were literally flooded everywhere. Every little rill and springlet ran like a mill-tail, while the main stream rushed and roared, foaming, leaping, lashing, its volume increased fifty-fold. The water was not roily, but of a rich coffee-color, from the leachings of the woods. No more trout for the next three days! we thought, as we looked upon the rampant stream.

After we had labored and floundered along for about an hour, the road turned to the left, and in a little stumpy clearing near the creek a gable uprose on our view. It did not prove to be just such a place as poets love to contemplate. It required a greater effort of the imagination than any of us were then capable of to believe it had ever been a favorite resort of wood-nymphs or sylvan deities. It savored rather of the equine and the bovine. The bark-men had kept their teams there, horses on the one side and oxen on the other, and no Hercules had ever done duty in cleansing the stables. But there was a dry loft overhead with some straw, where we might get some sleep, in spite of the rain and the midges; a double layer of boards, standing at a very acute angle, would keep off the former, while the mingled refuse hay and muck beneath would nurse a smoke that would prove a thorough protection against the latter. And then, when Jim, the two-handed, mounting the trunk of a prostrate maple near by, had severed it thrice with easy and familiar stroke, and, rolling the logs in front of the shanty, had kindled a fire, which, getting the better of the dampness, soon cast a bright glow over all, shedding warmth and light even into the dingy stable, I consented to unsling my knapsack and accept the situation. The rain had ceased, and the sun shone out behind the woods. We had trout sufficient for present needs; and after my first meal in an ox-stall, I strolled out on the rude log bridge to watch the angry Never-sink rush by. Its waters fell quite as rapidly as they rose, and before sundown it looked as if we might have fishing again on the morrow. We had better sleep

that night than either night before, though there were two disturbing causes, — the smoke in the early part of it, and the cold in the latter. The “no-see-ems” left in disgust; and, though disgusted myself, I swallowed the smoke as best I could, and hugged my pallet of straw the closer. But the day dawned bright, and a plunge in the Neversink set me all right again. The creek, to our surprise and gratification, was only a little higher than before the rain, and some of the finest trout we had yet seen we caught that morning near camp.

We tarried yet another day and night at the old stable, but taking our meals outside squatted on the ground, which had now become quite dry. Part of the day I spent strolling about the woods, looking up old acquaintances among the birds, and, as always, half expectant of making some new ones. Curiously enough, the most abundant species were among those I had found rare in most other localities, namely, the small water-wagtail, the mourning ground warbler, and the yellow-bellied woodpecker. The latter seems to be the prevailing woodpecker through the woods of this region.

That night the midges, those motes that sting, held high carnival. We learned afterward, in the settlement below and from the bark-peelers, that it was the worst night ever experienced in that valley. We had done no fishing during the day, but had anticipated some fine sport about sundown. Accordingly Aaron and I started off between six and seven o’clock, one going up stream and the other down. The scene was charming. The sun shot up great spokes of light from behind the woods, and beauty, like a presence, pervaded the atmosphere.

But torment, multiplied as the sands of the seashore, lurked in every tangle and thicket. In a thoughtless moment I removed my shoes and socks, and waded in the water to secure a fine trout that had accidentally slipped from my string and was helplessly floating with the current. This caused some delay and gave the gnats time to accumulate. Before I had got one foot half dressed I was enveloped in a black mist that settled upon my hands and neck and face, filling my ears with infinitesimal pipings and covering my flesh with infinitesimal bitings. I thought I should have to flee to the friendly fumes of the old stable, with "one stocking off and one stocking on;" but I got my shoe on at last, though not without many amusing interruptions and digressions.

In a few moments after this adventure I was in rapid retreat toward camp. Just as I reached the path leading from the shanty to the creek, my companion in the same ignoble flight reached it also, his hat broken and rumpled, and his sanguine countenance looking more sanguinary than I had ever before seen it, and his speech, also, in the highest degree inflammatory. His face and forehead were as blotched and swollen as if he had just run his head into a hornets' nest, and his manner as precipitate as if the whole swarm was still at his back.

No smoke or smudge which we ourselves could endure was sufficient in the earlier part of that evening to prevent serious annoyance from the same cause; but later a respite was granted us.

About ten o'clock, as we stood round our camp-fire, we were startled by a brief but striking display of the

aurora borealis. My imagination had already been excited by talk of legends and of weird shapes and appearances, and when, on looking up toward the sky, I saw those pale, phantasmal waves of magnetic light chasing each other across the little opening above our heads, and at first sight seeming barely to clear the treetops, I was as vividly impressed as if I had caught a glimpse of a veritable spectre of the Neversink. The sky shook and trembled like a great white curtain.

After we had climbed to our loft and had lain down to sleep, another adventure befell us. This time a new and uninviting customer appeared upon the scene, the *genius loci* of the old stable, namely, the "fretful porcupine." We had seen the marks and work of these animals about the shanty, and had been careful each night to hang our traps, guns, etc., beyond their reach, but of the prickly night-walker himself we feared we should not get a view.

We had lain down some half hour, and I was just on the threshold of sleep, ready, as it were, to pass through the open door into the land of dreams, when I heard outside somewhere that curious sound, — a sound which I had heard every night I spent in these woods, not only on this but on former expeditions, and which I had settled in my mind as proceeding from the porcupine, since I knew the sounds our other common animals were likely to make, — a sound that might be either a gnawing on some hard, dry substance, or a grating of teeth, or a shrill grunting.

Orville heard it also, and, raising up on his elbow, asked, "What is that?"

“What the hunters call a ‘porcupig,’ ” said I.

“Sure?”

“Entirely so.”

“Why does he make that noise?”

“It is a way he has of cursing our fire,” I replied.
“I heard him last night also.”

“Where do you suppose he is?” inquired my companion, showing a disposition to look him up.

“Not far off, perhaps fifteen or twenty yards from our fire, where the shadows begin to deepen.”

Orville slipped into his trousers, felt for my gun, and in a moment had disappeared down through the scuttle hole. I had no disposition to follow him, but was rather annoyed than otherwise at the disturbance. Getting the direction of the sound, he went picking his way over the rough, uneven ground, and, when he got where the light failed him, poking every doubtful object with the end of his gun. Presently he poked a light grayish object, like a large round stone, which surprised him by moving off. On this hint he fired, making an incurable wound in the “porcupig,” which, nevertheless, tried harder than ever to escape. I lay listening, when, close on the heels of the report of the gun, came excited shouts for a revolver. Snatching up my Smith and Wesson, I hastened, shoeless and hatless, to the scene of action, wondering what was up. I found my companion struggling to detain, with the end of the gun, an uncertain object that was trying to crawl off into the darkness. “Look out!” said Orville, as he saw my bare feet, “the quills are lying thick around here.”

And so they were; he had blown or beaten them

nearly all off the poor creature's back, and was in a fair way completely to disable my gun, the ramrod of which was already broken and splintered clubbing his victim. But a couple of shots from the revolver, sighted by a lighted match, at the head of the animal, quickly settled him.

He proved to be an unusually large Canada porcupine, — an old patriarch, gray and venerable, with spines three inches long, and weighing, I should say, twenty pounds. The build of this animal is much like that of the woodchuck, that is, heavy and pouchy. The nose is blunter than that of the woodchuck, the limbs stronger, and the tail broader and heavier. Indeed, the latter appendage is quite clublike, and the animal can, no doubt, deal a smart blow with it. An old hunter with whom I talked thought it aided them in climbing. They are inveterate gnawers, and spend much of their time in trees gnawing the bark. In winter one will take up its abode in a hemlock, and continue there till the tree is quite denuded. The carcass emitted a peculiar, offensive odor, and, though very fat, was not in the least inviting as game. If it is part of the economy of nature for one animal to prey upon some other beneath it, then the poor devil has indeed a mouthful that makes a meal off the porcupine. Panthers and lynxes have essayed it, but have invariably left off at the first course, and have afterwards been found dead, or nearly so, with their heads puffed up like a pincushion, and the quills protruding on all sides. A dog that understands the business will manœuvre round the porcupine till he gets an opportunity to throw it over on its back, when

he fastens on its quillless underbody. Aaron was puzzled to know how long-parted friends could embrace, when it was suggested that the quills could be depressed or elevated at pleasure.

The next morning boded rain; but we had become thoroughly sated with the delights of our present quarters, outside and in, and packed up our traps to leave. Before we had reached the clearing, three miles below, the rain set in, keeping up a lazy, monotonous drizzle till the afternoon.

The clearing was quite a recent one, made mostly by bark-peelers, who followed their calling in the mountains round about in summer, and worked in their shops making shingle in winter. The Biscuit Brook came in here from the west, — a fine, rapid trout stream six or eight miles in length, with plenty of deer in the mountains about its head. On its banks we found the house of an old woodman, to whom we had been directed for information about the section we proposed to traverse.

“Is the way very difficult,” we inquired, “across from the Neversink into the head of the Beaverkill?”

“Not to me; I could go it the darkest night ever was. And I can direct you so you can find the way without any trouble. You go down the Neversink about a mile, when you come to Highfall Brook, the first stream that comes down on the right. Follow up it to Jim Reed’s shanty, about three miles. Then cross the stream, and on the left bank, pretty well up on the side of the mountain, you will find a wood-road, which was made by a fellow below here who stole some ash logs off the top of the ridge last winter and drew them out on the snow.

When the road first begins to tilt over the mountain, strike down to your left, and you can reach the Beaverkill before sundown."

As it was then after two o'clock, and as the distance was six or eight of these terrible hunters' miles, we concluded to take a whole day to it, and wait till next morning. The Beaverkill flowed west, the Neversink south, and I had a mortal dread of getting entangled amid the mountains and valleys that lie in either angle.

Besides, I was glad of another and final opportunity to pay my respects to the finny tribes of the Neversink. At this point it was one of the finest trout streams I had ever beheld. It was so sparkling, its bed so free from sediment or impurities of any kind, that it had a new look, as if it had just come from the hand of its Creator. I tramped along its margin upward of a mile that afternoon, part of the time wading to my knees, and casting my hook, baited only with a trout's fin, to the opposite bank. Trout are real cannibals, and make no bones, and break none either, in lunching on each other. A friend of mine had several in his spring, when one day a large female trout gulped down one of her male friends, nearly one third her own size, and went around for two days with the tail of her liege lord protruding from her mouth! A fish's eye will do for bait, though the anal fin is better. One of the natives here told me that when he wished to catch large trout (and I judged he never fished for any other, — I never do), he used for bait the bull-head, or dart, a little fish an inch and a half or two inches long, that rests on the pebbles near shore and darts quickly, when disturbed, from point to point. "Put

that on your hook," said he, "and if there is a big fish in the creek, he is bound to have it." But the darts were not easily found; the big fish, I concluded, had cleaned them all out; and, then, it was easy enough to supply our wants with a fin.

Declining the hospitable offers of the settlers, we spread our blankets that night in a dilapidated shingle-shop on the banks of the Biscuit Brook, first flooring the damp ground with the new shingle that lay piled in one corner. The place had a great-throated chimney with a tremendous expanse of fireplace within, that cried "More!" at every morsel of wood we gave it.

But I must hasten over this part of the ground, nor let the delicious flavor of the milk we had that morning for breakfast, and that was so delectable after four days of fish, linger on my tongue; nor yet tarry to set down the talk of that honest, weather-worn passer-by who paused before our door, and every moment on the point of resuming his way, yet stood for an hour and recited his adventures hunting deer and bears on these mountains. Having replenished our stock of bread and salt pork at the house of one of the settlers, midday found us at Reed's shanty, — one of those temporary structures erected by the bark-jobber to lodge and board his "hands" near their work. Jim not being at home, we could gain no information from the "women folks" about the way, nor from the men who had just come in to dinner; so we pushed on, as near as we could, according to the instructions we had previously received. Crossing the creek, we forced our way up the side of the mountain, through a perfect *cheval-de-frise* of fallen and

peeled hemlocks, and, entering the dense woods above, began to look anxiously about for the wood-road. My companions at first could see no trace of it; but knowing that a casual wood-road cut in winter, when there was likely to be two or three feet of snow on the ground, would present only the slightest indications to the eye in summer, I looked a little closer, and could make out a mark or two here and there. The larger trees had been avoided, and the axe used only on the small saplings and underbrush, which had been lopped off a couple of feet from the ground. By being constantly on the alert, we followed it till near the top of the mountain; but, when looking to see it "tilt" over the other side, it disappeared altogether. Some stumps of the black cherry were found, and a solitary pair of snow-shoes was hanging high and dry on a branch, but no further trace of human hands could we see. While we were resting here a couple of hermit thrushes, one of them with some sad defect in his vocal powers which barred him from uttering more than a few notes of his song, gave voice to the solitude of the place. This was the second instance in which I have observed a song-bird with apparently some organic defect in its instrument. The other case was that of a bobolink, which, hover in mid-air and inflate its throat as it might, could only force out a few incoherent notes. But the bird in each case presented this striking contrast to human examples of the kind, that it was apparently just as proud of itself, and just as well satisfied with its performance, as were its more successful rivals.

After deliberating some time over a pocket compass which I carried, we decided upon our course, and held

on to the west. The descent was very gradual. Traces of bear and deer were noted at different points, but not a live animal was seen.

About four o'clock we reached the bank of a stream flowing west. Hail to the Beaverkill! and we pushed on along its banks. The trout were plenty, and rose quickly to the hook; but we held on our way, designing to go into camp about six o'clock. Many inviting places, first on one bank, then on the other, made us linger, till finally we reached a smooth, dry place overshadowed by balsam and hemlock, where the creek bent around a little flat, which was so entirely to our fancy that we unslung our knapsacks at once. While my companions were cutting wood and making other preparations for the night, it fell to my lot, as the most successful angler, to provide the trout for supper and breakfast. How shall I describe that wild, beautiful stream, with features so like those of all other mountain streams? And yet, as I saw it in the deep twilight of those woods on that June afternoon, with its steady, even flow, and its tranquil, many-voiced murmur, it made an impression upon my mind distinct and peculiar, fraught in an eminent degree with the charm of seclusion and remoteness. The solitude was perfect, and I felt that strangeness and insignificance which the civilized man must always feel when opposing himself to such a vast scene of silence and wildness. The trout were quite black, like all wood trout, and took the bait eagerly. I followed the stream till the deepening shadows warned me to turn back. As I neared camp, the fire shone far through the trees, dispelling the gathering gloom, but blinding my eyes to all

obstacles at my feet. I was seriously disturbed on arriving to find that one of my companions had cut an ugly gash in his shin with the axe while felling a tree. As we did not carry a fifth wheel, it was not just the time or place to have any of our members crippled, and I had bodings of evil. But, thanks to the healing virtues of the balsam which must have adhered to the blade of the axe, and double thanks to the court-plaster with which Orville had supplied himself before leaving home, the wounded leg, by being favored that night and the next day, gave us little trouble.

That night we had our first fair and square camping-out, — that is, sleeping on the ground with no shelter over us but the trees, — and it was in many respects the pleasantest night we spent in the woods. The weather was perfect and the place was perfect, and for the first time we were exempt from the midges and smoke; and then we appreciated the clean new page we had to work on. Nothing is so acceptable to the camper-out as a pure article in the way of woods and waters. Any admixture of human relics mars the spirit of the scene. Yet I am willing to confess that, before we were through those woods, the marks of an axe in a tree were a welcome sight. On resuming our march next day we followed the right bank of the Beaverkill, in order to strike a stream which flowed in from the north, and which was the outlet of Balsam Lake, the objective point of that day's march. The distance to the lake from our camp could not have been over six or seven miles; yet, traveling as we did, without path or guide, climbing up banks, plunging into ravines, making detours around

swampy places, and forcing our way through woods choked up with much fallen and decayed timber, it seemed at least twice that distance, and the mid-afternoon sun was shining when we emerged into what is called the "Quaker Clearing," ground that I had been over nine years before, and that lies about two miles south of the lake. From this point we had a well-worn path that led us up a sharp rise of ground, then through level woods till we saw the bright gleam of the water through the trees.

I am always struck, on approaching these little mountain lakes, with the extensive preparation that is made for them in the conformation of the ground. I am thinking of a depression, or natural basin, in the side of the mountain or on its top, the brink of which I shall reach after a little steep climbing; but instead of that, after I have accomplished the ascent, I find a broad sweep of level or gently undulating woodland that brings me after a half hour or so to the lake, which lies in this vast lap like a drop of water in the palm of a man's hand.

Balsam Lake was oval-shaped, scarcely more than half a mile long and a quarter of a mile wide, but presented a charming picture, with a group of dark gray hemlocks filling the valley about its head, and the mountains rising above and beyond. We found a bough house in good repair, also a dug-out and paddle and several floats of logs. In the dug-out I was soon creeping along the shady side of the lake, where the trout were incessantly jumping for a species of black fly, that, sheltered from the slight breeze, were dancing in swarms just above the surface of the water. The gnats were

there in swarms also, and did their best toward balancing the accounts by preying upon me while I preyed upon the trout which preyed upon the flies. But by dint of keeping my hands, face, and neck constantly wet, I am convinced that the balance of blood was on my side. The trout jumped most within a foot or two of shore, where the water was only a few inches deep. The shallowness of the water, perhaps, accounted for the inability of the fish to do more than lift their heads above the surface. They came up mouths wide open, and dropped back again in the most impotent manner. Where there is any depth of water, a trout will jump several feet into the air; and where there is a solid, unbroken sheet or column, they will scale falls and dams fifteen feet high.

We had the very cream and flower of our trout-fishing at this lake. For the first time we could use the fly to advantage; and then the contrast between laborious tramping along shore, on the one hand, and sitting in one end of a dug-out and casting your line right and left with no fear of entanglement in brush or branch, while you were gently propelled along, on the other, was of the most pleasing character.

There were two varieties of trout in the lake, — what it seems proper to call silver trout and golden trout; the former were the slimmer, and seemed to keep apart from the latter. Starting from the outlet and working round on the eastern side toward the head, we invariably caught these first. They glanced in the sun like bars of silver. Their sides and bellies were indeed as white as new silver. As we neared the head, and especially as we came near a space occupied by some kind of water-grass

that grew in the deeper part of the lake, the other variety would begin to take the hook, their bellies a bright gold color, which became a deep orange on their fins; and as we returned to the place of departure with the bottom of the boat strewn with these bright forms intermingled, it was a sight not soon to be forgotten. It pleased my eye so, that I would fain linger over them, arranging them in rows and studying the various hues and tints. They were of nearly a uniform size, rarely one over ten or under eight inches in length, and it seemed as if the hues of all the precious metals and stones were reflected from their sides. The flesh was deep salmon-color; that of brook trout is generally much lighter. Some hunters and fishers from the valley of the Mill Brook, whom we met here, told us the trout were much larger in the lake, though far less numerous than they used to be. Brook trout do not grow large till they become scarce. It is only in streams that have been long and much fished that I have caught them as much as sixteen inches in length.

The "porcupigs" were numerous about the lake, and not at all shy. One night the heat became so intolerable in our oven-shaped bough house that I was obliged to withdraw from under its cover and lie down a little to one side. Just at daybreak, as I lay rolled in my blanket, something awoke me. Lifting up my head, there was a porcupine with his forepaws on my hips. He was apparently as much surprised as I was; and to my inquiry as to what he at that moment might be looking for, he did not pause to reply, but hitting me a slap with his tail which left three or four quills in my blanket, he scampered off down the hill into the brush.

Being an observer of the birds, of course every curious incident connected with them fell under my notice. Hence, as we stood about our camp-fire one afternoon looking out over the lake, I was the only one to see a little commotion in the water, half hidden by the near branches, as of some tiny swimmer struggling to reach the shore. Rushing to its rescue in the canoe, I found a yellow-rumped warbler, quite exhausted, clinging to a twig that hung down into the water. I brought the drenched and helpless thing to camp, and, putting it into a basket, hung it up to dry. An hour or two afterward I heard it fluttering in its prison, and when I cautiously lifted the lid to get a better glimpse of the lucky captive, it darted out and was gone in a twinkling. How came it in the water? That was my wonder, and I can only guess that it was a young bird that had never before flown over a pond of water, and, seeing the clouds and blue sky so perfect down there, thought it was a vast opening or gateway into another summer land, perhaps a short cut to the tropics, and so got itself into trouble. How my eye was delighted also with the redbird that alighted for a moment on a dry branch above the lake, just where a ray of light from the setting sun fell full upon it! A mere crimson point, and yet how it offset that dark, sombre background!

I have thus run over some of the features of an ordinary troutting excursion to the woods. People inexperienced in such matters, sitting in their rooms and thinking of these things, of all the poets have sung and romancers written, are apt to get sadly taken in

when they attempt to realize their dreams. They expect to enter a sylvan paradise of trout, cool retreats, laughing brooks, picturesque views, and balsamic couches, instead of which they find hunger, rain, smoke, toil, gnats, mosquitoes, dirt, broken rest, vulgar guides, and salt pork; and they are very apt not to see where the fun comes in. But he who goes in a right spirit will not be disappointed, and will find the taste of this kind of life better, though bitterer, than the writers have described.

JOHN MUIR

AMONG THE BIRDS OF THE YOSEMITE

TRAVELERS in the Sierra forests usually complain of the want of life. "The trees," they say, "are fine, but the empty stillness is deadly; there are no animals to be seen, no birds. We have not heard a song in all the woods." And no wonder! They go in large parties with mules and horses; they make a great noise; they are dressed in outlandish, unnatural colors; every animal shuns them. Even the frightened pines would run away if they could. But Nature-lovers, devout, silent, open-eyed, looking and listening with love, find no lack of inhabitants in these mountain mansions, and they come to them gladly. Not to mention the large animals or the small insect people, every waterfall has its ouzel and every tree its squirrel or tamias or bird: tiny nuthatch threading the furrows of the bark, cheerily whispering to itself as it deftly pries off loose scales and examines the curled edges of lichens; or Clarke crow or jay examining the cones; or some singer — oriole, tanager, warbler — resting, feeding, attending to domestic affairs. Hawks and eagles sail overhead, grouse walk in happy flocks below, and song sparrows sing in every bed of chaparral. There is no crowding, to be sure. Unlike the low Eastern trees, those of the Sierra in the main forest belt average nearly two hundred feet in height, and of course many birds are required to make much show in them, and many voices to fill them.

Nevertheless, the whole range, from foothills to snowy summits, is shaken into song every summer; and though low and thin in winter, the music never ceases.

The sage cock (*Centrocercus urophasianus*) is the largest of the Sierra game-birds and the king of American grouse. It is an admirably strong, hardy, handsome, independent bird, able with comfort to bid defiance to heat, cold, drought, hunger, and all sorts of storms, living on whatever seeds or insects chance to come in its way, or simply on the leaves of sage-brush, everywhere abundant on its desert range. In winter, when the temperature is oftentimes below zero, and heavy snow-storms are blowing, he sits beneath a sage bush and allows himself to be covered, poking his head now and then through the snow to feed on the leaves of his shelter. Not even the Arctic ptarmigan is hardier in braving frost and snow and wintry darkness. When in full plumage he is a beautiful bird, with a long, firm, sharp-pointed tail, which in walking is slightly raised and swings sidewise back and forth with each step. The male is handsomely marked with black and white on the neck, back, and wings, weighs five or six pounds, and measures about thirty inches in length. The female is clad mostly in plain brown, and is not so large. They occasionally wander from the sage plains into the open nut pine and juniper woods, but never enter the main coniferous forest. It is only in the broad, dry, half-desert sage plains that they are quite at home, where the weather is blazing hot in summer, cold in winter. If any one passes through a flock, all squat on the gray ground and hold their heads low, hoping to escape observation;

but when approached within a rod or so, they rise with a magnificent burst of wing-beats, looking about as big as turkeys and making a noise like a whirlwind.

On the 28th of June, at the head of Owen's Valley, I caught one of the young that was then just able to fly. It was seven inches long, of a uniform gray color, blunt-billed, and when captured cried lustily in a shrill, piping voice, clear in tone as a boy's small willow whistle. I have seen flocks of from ten to thirty or forty on the east margin of the Park, where the Mono Desert meets the gray foothills of the Sierra; but since cattle have been pastured there they are becoming rarer every year.

Another magnificent bird, the blue or dusky grouse, next in size to the sage cock, is found all through the main forest belt, though not in great numbers. They like best the heaviest silver fir woods near garden and meadow openings, where there is but little underbrush to cover the approach of enemies. When a flock of these brave birds, sauntering and feeding on the sunny, flowery levels of some hidden meadow or Yosemite valley far back in the heart of the mountains, see a man for the first time in their lives, they rise with hurried notes of surprise and excitement and alight on the lowest branches of the trees, wondering what the wanderer may be, and showing great eagerness to get a good view of the strange vertical animal. Knowing nothing of guns, they allow you to approach within a half-dozen paces, then quietly hop a few branches higher or fly to the next tree without a thought of concealment, so that you may observe them as long as you like, near enough to see the fine shading of their plumage, the feathers on their toes, and

the innocent wonderment in their beautiful wild eyes. But in the neighborhood of roads and trails they soon become shy, and when disturbed fly into the highest, leafiest trees, and suddenly become invisible, so well do they know how to hide and keep still and make use of their protective coloring. Nor can they be easily dislodged ere they are ready to go. In vain the hunter goes round and round some tall pine or fir into which he has perhaps seen a dozen enter, gazing up through the branches, straining his eyes while his gun is held ready; not a feather can he see unless his eyes have been sharpened by long experience and knowledge of the blue grouse's habits. Then, perhaps, when he is thinking that the tree must be hollow and that the birds have all gone inside, they burst forth with a startling whir of wing-beats, and after gaining full speed go skating swiftly away through the forest arches in a long, silent, wavering slide, with wings held steady.

During the summer they are most of the time on the ground, feeding on insects, seeds, berries, etc., around the margins of open spots and rocky moraines, playing and sauntering, taking sun baths and sand baths, and drinking at little pools and rills during the heat of the day. In winter they live mostly in the trees, depending on buds for food, sheltering beneath dense overlapping branches at night and during storms on the lee side of the trunk, sunning themselves on the south-side limbs in fine weather, and sometimes diving into the mealy snow to flutter and wallow, apparently for exercise and fun.

I have seen young broods running beneath the firs in June at a height of eight thousand feet above the sea.

On the approach of danger, the mother with a peculiar cry warns the helpless midgets to scatter and hide beneath leaves and twigs, and even in plain open places it is almost impossible to discover them. In the mean time the mother feigns lameness, throws herself at your feet, kicks and gasps and flutters, to draw your attention from the chicks. The young are generally able to fly about the middle of July; but even after they can fly well they are usually advised to run and hide and lie still, no matter how closely approached, while the mother goes on with her loving, lying acting, apparently as desperately concerned for their safety as when they were featherless infants. Sometimes, however, after carefully studying the circumstances, she tells them to take wing; and up and away in a blurry birr and whir they scatter to all points of the compass, as if blown up with gunpowder, dropping cunningly out of sight three or four hundred yards off, and keeping quiet until called, after the danger is supposed to be past. If you walk on a little way without manifesting any inclination to hunt them, you may sit down at the foot of a tree near enough to see and hear the happy reunion. One touch of nature makes the whole world kin; and it is truly wonderful how love-telling the small voices of these birds are, and how far they reach through the woods into one another's hearts and into ours. The tones are so perfectly human and so full of anxious affection, few mountaineers can fail to be touched by them.

They are cared for until full grown. On the 20th of August, as I was passing along the margin of a garden spot on the headwaters of the San Joaquin, a grouse

rose from the ruins of an old juniper that had been uprooted and brought down by an avalanche from a cliff overhead. She threw herself at my feet, limped and fluttered and gasped, showing, as I thought, that she had a nest and was raising a second brood. Looking for the eggs, I was surprised to see a strong-winged flock nearly as large as the mother fly up around me.

Instead of seeking a warmer climate when the winter storms set in, these hardy birds stay all the year in the high Sierra forests, and I have never known them to suffer in any sort of weather. Able to live on the buds of pine, spruce, and fir, they are forever independent in the matter of food-supply, which gives so many of us trouble, dragging us here and there away from our best work. How gladly I would live on pine buds, however pitchy, for the sake of this grand independence! With all his superior resources, man makes more distracting difficulty concerning food than any other of the family.

The mountain quail, or plumed partridge (*Oreortyx pictus plumiferus*) is common in all the upper portions of the Park, though nowhere in numbers. He ranges considerably higher than the grouse in summer, but is unable to endure the heavy storms of winter. When his food is buried, he descends the range to the brushy foothills, at a height of from two thousand to three thousand feet above the sea; but, like every true mountaineer, he is quick to follow the spring back into the highest mountains. I think he is the very handsomest and most interesting of all the American partridges, larger and handsomer than the famous Bob White, or

even the fine California valley quail, or the Massena partridge of Arizona and Mexico. That he is not so regarded, is because as a lonely mountaineer he is not half known.

His plumage is delicately shaded, brown above, white and rich chestnut below and on the sides, with many dainty markings of black and white and gray here and there, while his beautiful head-plume, three or four inches long, nearly straight, composed of two feathers closely folded so as to appear as one, is worn jauntily slanted backward like a single feather in a boy's cap, giving him a very marked appearance. They wander over the lonely mountains in family flocks of from six to fifteen, beneath ceanothus, manzanita, and wild cherry thickets, and over dry sandy flats, glacier meadows, rocky ridges, and beds of bryanthus around glacier lakes, especially in autumn, when the berries of the upper gardens are ripe, uttering low clucking notes to enable them to keep together. When they are so suddenly disturbed that they are afraid they cannot escape the danger by running into thickets, they rise with a fine hearty whir and scatter in the brush over an area of half a square mile or so, a few of them diving into leafy trees. But as soon as the danger is past, the parents with a clear piping note call them together again. By the end of July the young are two-thirds grown and fly well, though only dire necessity can compel them to try their wings. In gait, gestures, habits, and general behavior they are like domestic chickens, but infinitely finer, searching for insects and seeds, looking to this side and that, scratching among fallen leaves, jumping up to pull

down grass heads, and clucking and muttering in low tones.

Once when I was seated at the foot of a tree on the headwaters of the Merced, sketching, I heard a flock up the valley behind me, and by their voices gradually sounding nearer I knew that they were feeding toward me. I kept still, hoping to see them. Soon one came within three or four feet of me, without noticing me any more than if I were a stump or a bulging part of the trunk against which I was leaning, my clothing being brown, nearly like the bark. Presently along came another and another, and it was delightful to get so near a view of these handsome chickens perfectly undisturbed, observe their manners, and hear their low, peaceful notes. At last one of them caught my eye, gazed in silent wonder for a moment, then uttered a peculiar cry, which was followed by a lot of hurried muttered notes that sounded like speech. The others, of course, saw me as soon as the alarm was sounded, and joined the wonder talk, gazing and chattering, astonished but not frightened. Then all with one accord ran back with the news to the rest of the flock. "What is it? what is it? Oh, you never saw the like," they seemed to be saying. "Not a deer, or a wolf, or a bear; come see, come see." "Where? where?" "Down there by that tree." Then they approached cautiously, past the tree, stretching their necks, and looking up in turn, as if knowing from the story told them just where I was. For fifteen or twenty minutes they kept coming and going, venturing within a few feet of me, and discussing the wonder in charming chatter. Their curiosity at last

satisfied, they began to scatter and feed again, going back in the direction they had come from; while I, loath to part with them, followed noiselessly, crawling beneath the bushes, keeping them in sight for an hour or two, learning their habits, and finding out what seeds and berries they liked best.

The valley quail is not a mountaineer, and seldom enters the Park except at a few of the lowest places on the western boundary. It belongs to the brushy foothills and plains, orchards and wheatfields, and is a hundred times more numerous than the mountain quail. It is a beautiful bird, about the size of the bob-white, and has a handsome crest of four or five feathers an inch long, recurved, standing nearly erect at times or drooping forward. The loud calls of these quails in the spring — *pe-check-ah*, *pe-check-a*, *hoy*, *hoy* — are heard far and near over all the lowlands. They have vastly increased in numbers since the settlement of the country, notwithstanding the immense numbers killed every season by boys and pot-hunters as well as the regular leggined sportsmen from the towns; for man's destructive action is more than counterbalanced by increased supply of food from cultivation, and by the destruction of their enemies — coyotes, skunks, foxes, hawks, owls, etc. — which not only kill the old birds, but plunder their nests. Where coyotes and skunks abound, scarce one pair in a hundred is successful in raising a brood. So well aware are these birds of the protection afforded by man, even now that the number of their wild enemies has been greatly diminished, that they prefer to nest near houses, notwithstanding they are so shy. Four or

five pairs rear their young around our cottage every spring. One year a pair nested in a straw-pile within four or five feet of the stable door, and did not leave the eggs when the men led the horses back and forth within a foot or two. For many seasons a pair nested in a tuft of pampas grass in the garden; another pair in an ivy vine on the cottage roof, and when the young were hatched, it was interesting to see the parents getting the fluffy dots down. They were greatly excited, and their anxious calls and directions to their many babes attracted our attention. They had no great difficulty in persuading the young birds to pitch themselves from the main roof to the porch roof among the ivy, but to get them safely down from the latter to the ground, a distance of ten feet, was most distressing. It seemed impossible the frail soft things could avoid being killed. The anxious parents led them to a point above a spiræa bush that reached nearly to the eaves, which they seemed to know would break the fall. Anyhow they led their chicks to this point, and with infinite coaxing and encouragement got them to tumble themselves off. Down they rolled and sifted through the soft leaves and panicles to the pavement, and, strange to say, all got away unhurt except one, that lay as if dead for a few minutes. When it revived, the joyful parents, with their brood fairly launched on the journey of life, proudly led them down the cottage hill, through the garden, and along an osage orange hedge into the cherry orchard. These charming birds even enter towns and villages, where the gardens are of good size and guns are forbidden, sometimes going several miles to feed, and

returning every evening to their roosts in ivy or brushy trees and shrubs.

Geese occasionally visit the Park, but never stay long. Sometimes on their way across the range, a flock wanders into Hetch-Hetchy or Yosemite to rest or get something to eat, and if shot at, are often sorely bewildered in seeking a way out. I have seen them rise from the meadow or river, wheel round in a spiral until a height of four or five hundred feet was reached, then form ranks and try to fly over the wall. But Yosemite magnitudes seem to be as deceptive to geese as to men, for they would suddenly find themselves against the cliffs not a fourth of the way to the top. Then turning in confusion, and screaming at the strange heights, they would try the opposite side and so on until exhausted they were compelled to rest, and only after discovering the river cañon could they make their escape. Large, harrow-shaped flocks may often be seen crossing the range in the spring, at a height of at least fourteen thousand feet. Think of the strength of wing required to sustain so heavy a bird in air so thin. At this elevation it is but little over half as dense as at the sea-level. Yet they hold bravely on in beautifully dressed ranks, and have breath enough to spare for loud honking. After the crest of the Sierra is passed it is only a smooth slide down the sky to the waters of Mono, where they may rest as long as they like.

Ducks of five or six species, among which are the mallard and wood duck, go far up into the heart of the mountains in the spring, and of course come down in the fall with the families they have reared. A few, as if

loath to leave the mountains, pass the winter in the lower valleys of the Park at a height of three thousand to four thousand feet, where the main streams are never wholly frozen over, and snow never falls to a great depth or lies long. In summer they are found up to a height of eleven thousand feet on all the lakes and branches of the rivers except the smallest, and those beside the glaciers encumbered with drifting ice and snow. I found mallards and wood ducks at Lake Tenaya, June 1, before the ice covering was half melted, and a flock of young ones in Bloody Cañon Lake, June 20. They are usually met in pairs, never in large flocks. No place is too wild or rocky or solitary for these brave swimmers, no stream too rapid. In the roaring, resounding cañon torrents, they seem as much at home as in the tranquil reaches and lakes of the broad glacial valleys. Abandoning themselves to the wild play of the waters, they go drifting confidingly through blinding, thrashing spray, dancing on boulder-dashed waves, tossing in beautiful security on rougher water than is usually encountered by sea-birds when storms are blowing.

A mother duck with her family of ten little ones, waltzing round and round in a pot-hole ornamented with foam bells, huge rocks leaning over them, cascades above and below and beside them, made one of the most interesting bird pictures I ever saw.

I have never found the great northern diver in the Park lakes. Most of them are inaccessible to him. He might plump down into them, but would hardly be able to get out of them, since, with his small wings and heavy

body, a wide expanse of elbow room is required in rising. Now and then one may be seen in the lower Sierra lakes to the northward about Lassens Butte and Shasta, at a height of four thousand to five thousand feet, making the loneliest places lonelier with the wildest of wild cries.

Plovers are found along the sandy shores of nearly all the mountain lakes, tripping daintily on the water's edge, picking up insects; and it is interesting to learn how few of these familiar birds are required to make a solitude cheerful.

Sandhill cranes are sometimes found in comparatively small marshes, mere dots in the mighty forest. In such spots, at an elevation of from six thousand to eight thousand feet above the sea, they are occasionally met in pairs as early as the end of May, while the snow is still deep in the surrounding fir and sugar-pine woods. And on sunny days in autumn, large flocks may be seen sailing at a great height above the forests, shaking the crisp air into rolling waves with their hearty *koor-r-r*, *koor-r-r*, *uck-uck*, soaring in circles for hours together on their majestic wings, seeming to float without effort like clouds, eying the wrinkled landscape outspread like a map mottled with lakes and glaciers and meadows and streaked with shadowy cañons and streams, and surveying every frog marsh and sandy flat within a hundred miles.

Eagles and hawks are oftentimes seen above the ridges and domes. The greatest height at which I have observed them was about twelve thousand feet, over the summits of Mount Hoffman, in the middle region of the

Park. A few pairs had their nests on the cliffs of this mountain, and could be seen every day in summer, hunting marmots, mountain beavers, pikas, etc. A pair of golden eagles have made their home in Yosemite ever since I went there thirty years ago. Their nest is on the Nevada Fall Cliff, opposite the Liberty Cap. Their screams are rather pleasant to hear in the vast gulfs between the granite cliffs, and they help the owls in keeping the echoes busy.

But of all the birds of the high Sierra, the strangest, noisiest, and most notable is the Clarke crow (*Nucifraga columbiana*). He is a foot long and nearly two feet in extent of wing, ashy gray in general color, with black wings, white tail, and a strong, sharp bill, with which he digs into the pine cones for the seeds on which he mainly subsists. He is quick, boisterous, jerky, and irregular in his movements and speech, and makes a tremendously loud and showy advertisement of himself, — swooping and diving in deep curves across gorges and valleys from ridge to ridge, alighting on dead spars, looking warily about him, and leaving his dry, springy perches trembling from the vigor of his kick as he launches himself for a new flight, screaming from time to time loud enough to be heard more than a mile in still weather. He dwells far back on the high storm-beaten margin of the forest, where the mountain pine, juniper, and hemlock grow wide apart on glacier pavements and domes and rough crumbling ridges, and the dwarf pine makes a low crinkled growth along the flanks of the Summit peaks. In so open a region, of course, he is well seen. Everybody notices him, and nobody at first knows what

to make of him. One guesses he must be a woodpecker; another a crow or some sort of jay, another a magpie. He seems to be a pretty thoroughly mixed and fermented compound of all these birds, has all their strength, cunning, shyness, thievishness, and wary, suspicious curiosity combined and condensed. He flies like a wood-pecker, hammers dead limbs for insects, digs big holes in pine cones to get at the seeds, cracks nuts held between his toes, cries like a crow or Steller jay, — but in a far louder, harsher, and more forbidding tone of voice, — and besides his crow caws and screams, has a great variety of small chatter talk, mostly uttered in a fault-finding tone. Like the magpie, he steals articles that can be of no use to him. Once when I made my camp in a grove at Cathedral Lake, I chanced to leave a cake of soap on the shore where I had been washing, and a few minutes afterward I saw my soap flying past me through the grove, pushed by a Clarke crow.

In winter, when the snow is deep, the cones of the mountain pines are empty, and the juniper, hemlock, and dwarf pine orchard buried, he comes down to glean seeds in the yellow pine forests, startling the grouse with his loud screams. But even in winter, in calm weather, he stays in his high mountain home, defying the bitter frost. Once I lay snowbound through a three days' storm at the timber-line on Mount Shasta; and while the roaring snow-laden blast swept by, one of these brave birds came to my camp, and began hammering at the cones on the topmost branches of half-buried pines, without showing the slightest distress. I have seen Clarke crows feeding their young as early as June 19, at

a height of more than ten thousand feet, when nearly the whole landscape was snow-covered.

They are excessively shy, and keep away from the traveler as long as they think they are observed; but when one goes on without seeming to notice them, or sits down and keeps still, their curiosity speedily gets the better of their caution, and they come flying from tree to tree, nearer and nearer, and watch every motion. Few, I am afraid, will ever learn to like this bird, he is so suspicious and self-reliant, and his voice is so harsh that to most ears the scream of the eagle will seem melodious compared with it. Yet the mountaineer who has battled and suffered and struggled must admire his strength and endurance,— the way he faces the mountain weather, cleaves the icy blasts, cares for his young, and digs a living from the stern wilderness.

Higher yet than *Nucifraga* dwells the little dun-headed sparrow (*Leucosticte tephrocotis*). From early spring to late autumn he is to be found only on the snowy, icy peaks at the head of the glacier cirques and cañons. His feeding-grounds in spring are the snow-sheets between the peaks, and in midsummer and autumn the glaciers. Many bold insects go mountaineering almost as soon as they are born, ascending the highest summits on the mild breezes that blow in from the sea every day during steady weather; but comparatively few of these adventurers find their way down or see a flower-bed again. Getting tired and chilly, they alight on the snow fields and glaciers, attracted perhaps by the glare, take cold, and die. There they lie as if on a white cloth purposely outspread for them, and the dun sparrows find

them a rich and varied repast requiring no pursuit,—bees and butterflies on ice, and many spicy beetles, a perpetual feast, on tables big for guests so small, and in vast banqueting-halls ventilated by cool breezes that ruffle the feathers of the fairy brownies. Happy fellows, no rivals come to dispute possession with them. No other birds, not even hawks, as far as I have noticed, live so high. They see people so seldom, they flutter around the explorer with the liveliest curiosity, and come down a little way, sometimes nearly a mile, to meet him and conduct him into their icy homes.

When I was exploring the Merced group, climbing up the grand cañon between the Merced and Red mountains into the fountain amphitheatre of an ancient glacier, just as I was approaching the small active glacier that leans back in the shadow of Merced Mountain, a flock of twenty or thirty of these little birds, the first I had seen, came down the cañon to meet me, flying low, straight toward me as if they meant to fly in my face. Instead of attacking me or passing by, they circled round my head, chirping and fluttering for a minute or two, then turned and escorted me up the cañon, alighting on the nearest rocks on either hand, and flying ahead a few yards at a time to keep even with me.

I have not discovered their winter quarters. Probably they are in the desert ranges to the eastward, for I never saw any of them in Yosemite, the winter refuge of so many of the mountain birds.

Hummingbirds are among the best and most conspicuous of the mountaineers, flashing their ruby throats in countless wild gardens far up the higher slopes, where

they would be least expected. All one has to do to enjoy the company of these mountain-loving midgets is to display a showy blanket or handkerchief.

The arctic bluebird is another delightful mountaineer, singing a wild, cheery song and "carrying the sky on its back" over all the gray ridges and domes of the sub-alpine region.

A fine, hearty, good-natured lot of woodpeckers dwell in the Park, and keep it lively all the year round. Among the most notable of these are the magnificent log-cock (*Ceophlaeus pileatus*), the prince of Sierra woodpeckers, and only second in rank, as far as I know, of all the woodpeckers of the world; the Lewis woodpecker, large, black, glossy, that flaps and flies like a crow, does but little hammering, and feeds in great part on wild cherries and berries; and the carpenter, who stores up great quantities of acorns in the bark of trees for winter use. The last-named species is a beautiful bird, and far more common than the others. In the woods of the West he represents the Eastern red-head. Bright, cheerful, industrious, not in the least shy, the carpenters give delightful animation to the open Sierra forests at a height of from three thousand to fifty-five hundred feet, especially in autumn, when the acorns are ripe. Then no squirrel works harder at his pine-nut harvest than these woodpeckers at their acorn harvest, drilling holes in the thick, corky bark of the yellow pine and incense cedar, in which to store the crop for winter use,—a hole for each acorn, so nicely adjusted as to size that when the acorn, point foremost, is driven in, it fits so well that it cannot be drawn out without digging around it. Each

acorn is thus carefully stored in a dry bin, perfectly protected from the weather, — a most laborious method of stowing away a crop, a granary for each kernel. Yet the birds seem never to weary at the work, but go on so diligently that they seem determined to save every acorn in the grove. They are never seen eating acorns at the time they are storing them, and it is commonly believed that they never eat them or intend to eat them, but that the wise birds store them and protect them from the depredations of squirrels and jays, solely for the sake of the worms they are supposed to contain. And because these worms are too small for use at the time the acorns drop, they are shut up like lean calves and steers, each in a separate stall with abundance of food, to grow big and fat by the time they will be most wanted, that is, in winter, when insects are scarce and stall-fed worms most valuable. So these woodpeckers are supposed to be a sort of cattle-raisers, each with a drove of thousands, rivaling the ants that raise grain and keep herds of plant-lice for milk cows. Needless to say the story is not true, though some naturalists, even, believe it. When Emerson was in the Park, having heard the worm story and seen the great pines plugged full of acorns, he asked (just to pump me, I suppose), "Why do the woodpeckers take the trouble to put acorns into the bark of the trees?" "For the same reason," I replied, "that bees store honey and squirrels nuts." "But they tell me, Mr. Muir, that woodpeckers don't eat acorns." "Yes, they do," I said, "I have seen them eating them. During snow-storms they seem to eat little besides acorns. I have repeatedly interrupted them at their

meals, and seen the perfectly sound, half-eaten acorns. They eat them in the shell as some people eat eggs." "But what about the worms?" "I suppose," I said, "that when they come to a wormy one they eat both worm and acorn. Anyhow, they eat the sound ones when they can't find anything they like better, and from the time they store them until they are used they guard them, and woe to the squirrel or jay caught stealing." Indians, in times of scarcity, frequently resort to these stores and chop them out with hatchets; a bushel or more may be gathered from a single cedar or pine.

The common robin, with all his familiar notes and gestures, is found nearly everywhere throughout the Park, — in shady dells beneath dogwoods and maples, along the flowery banks of the streams, tripping daintily about the margins of meadows in the fir and pine woods, and far beyond on the shores of glacier lakes and the slopes of the peaks. How admirable the constitution and temper of this cheery, graceful bird, keeping glad health over so vast and varied a range! In all America he is at home, flying from plains to mountains, up and down, north and south, away and back, with the seasons and supply of food. Oftentimes in the High Sierra, as you wander through the solemn woods, awestricken and silent, you will hear the reassuring voice of this fellow wanderer ringing out sweet and clear as if saying, "Fear not, fear not. Only love is here." In the severest solitudes he seems as happy as in gardens and apple orchards.

The robins enter the Park as soon as the snow melts,

and go on up the mountains, gradually higher, with the opening flowers, until the topmost glacier meadows are reached in June and July. After the short summer is done, they descend, like most other summer visitors, in concord with the weather, keeping out of the first heavy snows as much as possible, while lingering among the frost-nipped wild cherries on the slopes just below the glacier meadows. Thence they go to the lower slopes of the forest region, compelled to make haste at times by heavy all-day storms, picking up seeds or benumbed insects by the way; and at last all, save a few that winter in Yosemite valleys, arrive in the vineyards and orchards and stubble-fields of the lowlands in November, picking up fallen fruit and grain, and awakening old-time memories among the white-headed pioneers, who cannot fail to recognize the influence of so homelike a bird. They are then in flocks of hundreds, and make their way into the gardens of towns as well as into the parks and fields and orchards about the bay of San Francisco, where many of the wanderers are shot for sport and the morsel of meat on their breasts. Man then seems a beast of prey. Not even genuine piety can make the robin-killer quite respectable. Saturday is the great slaughter day in the bay region. Then the city pot-hunters, with a rag-tag of boys, go forth to kill, kept in countenance by a sprinkling of regular sportsmen arrayed in self-conscious majesty and leggins, leading dogs and carrying hammerless, breech-loading guns of famous makers. Over the fine landscapes the killing goes forward with shameful enthusiasm. After escaping countless dangers, thousands fall, big bagfuls are gathered, many are left

wounded to die slowly, no Red Cross Society to help them. Next day, Sunday, the blood and leggins vanish from the most devout of the bird-butchers, who go to church, carrying gold-headed canes instead of guns. After hymns, prayers, and sermon they go home to feast, to put God's song-birds to use, put them in their dinners instead of in their hearts, eat them, and suck the pitiful little drumsticks. It is only race living on race, to be sure, but Christians singing Divine Love need not be driven to such straits while wheat and apples grow and the shops are full of dead cattle. Song-birds for food! Compared with this, making kindlings of pianos and violins would be pious economy.

The larks come in large flocks from the hills and mountains in the fall, and are slaughtered as ruthlessly as the robins. Fortunately, most of our song-birds keep back in leafy hidings, and are comparatively inaccessible.

The water ouzel, in his rocky home amid foaming waters, seldom sees a gun, and of all the singers I like him the best. He is a plainly dressed little bird, about the size of a robin, with short, crisp, but rather broad wings, and a tail of moderate length, slanted up, giving him, with his nodding, bobbing manners, a wrennish look. He is usually seen fluttering about in the spray of falls and the rapid cascading portions of the main branches of the rivers. These are his favorite haunts; but he is often seen also on comparatively level reaches and occasionally on the shores of mountain lakes, especially at the beginning of winter, when heavy snowfalls have blurred the streams with sludge. Though not a

water-bird in structure, he gets his living in the water, and is never seen away from the immediate margin of streams. He dives fearlessly into rough, boiling eddies and rapids to feed at the bottom, flying under water seemingly as easily as in the air. Sometimes he wades in shallow places, thrusting his head under from time to time in a nodding, frisky way that is sure to attract attention. His flight is a solid whir of wing-beats like that of a partridge, and in going from place to place along his favorite string of rapids he follows the windings of the stream, and usually alights on some rock or snag on the bank or out in the current, or rarely on the dry limb of an overhanging tree, perching like a tree bird when it suits his convenience. He has the oddest, neatest manners imaginable, and all his gestures as he flits about in the wild, dashing waters bespeak the utmost cheerfulness and confidence. He sings both winter and summer, in all sorts of weather, — a sweet, flutey melody, rather low, and much less keen and accentuated than from the brisk vigor of his movements one would be led to expect.

How romantic and beautiful is the life of this brave little singer on the wild mountain streams, building his round, bossy nest of moss by the side of a rapid or fall, where it is sprinkled and kept fresh and green by the spray! No wonder he sings well, since all the air about him is music; every breath he draws is part of a song, and he gets his first music lessons before he is born; for the eggs vibrate in time with the tones of the waterfalls. Bird and stream are inseparable, songful and wild, gentle and strong, — the bird ever in danger in the midst

of the stream's mad whirlpools, yet seemingly immortal. And so I might go on, writing words, words, words; but to what purpose? Go see him and love him, and through him as through a window look into Nature's warm heart.

THE SEQUOIA

THE Big Tree (*Sequoia gigantea*) is Nature's forest masterpiece, and, so far as I know, the greatest of living things. It belongs to an ancient stock, as its remains in old rocks show, and has a strange air of other days about it, a thoroughbred look inherited from the long ago — the auld lang syne of trees. Once the genus was common, and with many species flourished in the now desolate Arctic regions, in the interior of North America, and in Europe, but in long, eventful wanderings from climate to climate only two species have survived the hardships they had to encounter, the *gigantea* and *sempervirens*, the former now restricted to the western slopes of the Sierra, the other to the Coast Mountains, and both to California, excepting a few groves of redwood which extend into Oregon. The Pacific Coast in general is the paradise of conifers. Here nearly all of them are giants, and display a beauty and magnificence unknown elsewhere. The climate is mild, the ground never freezes, and moisture and sunshine abound all the year. Nevertheless it is not easy to account for the colossal size of the sequoias. The largest are about three hundred feet high and thirty feet in diameter. Who of all the dwellers of the plains and prairies and fertile home forests of round-headed oak and maple, hickory and elm, ever dreamed that earth could bear such growths, — trees

that the familiar pines and firs seem to know nothing about, lonely, silent, serene, with a physiognomy almost godlike; and so old, thousands of them still living had already counted their years by tens of centuries when Columbus set sail from Spain and were in the vigor of youth or middle age when the star led the Chaldean sages to the infant Saviour's cradle! As far as man is concerned they are the same yesterday, to-day, and forever, emblems of permanence.

No description can give any adequate idea of their singular majesty, much less of their beauty. Excepting the sugar pine, most of their neighbors with pointed tops seem to be forever shouting *Excelsior*, while the Big Tree, though soaring above them all, seems satisfied, its rounded head, poised lightly as a cloud, giving no impression of trying to go higher. Only in youth does it show like other conifers a heavenward yearning, keenly aspiring with a long quick-growing top. Indeed the whole tree for the first century or two, or until a hundred to a hundred and fifty feet high, is arrowhead in form, and, compared with the solemn rigidity of age, is as sensitive to the wind as a squirrel-tail. The lower branches are gradually dropped as it grows older, and the upper ones thinned out until comparatively few are left. These, however, are developed to great size, divide again and again, and terminate in bossy, rounded masses of leafy branchlets, while the head becomes dome-shaped. Then poised in fullness of strength and beauty, stern and solemn in mien, it glows with eager, enthusiastic life, quivering to the tip of every leaf and branch and far-reaching root, calm as a granite dome, the first to feel

the touch of the rosy beams of the morning, the last to bid the sun good-night.

Perfect specimens, unhurt by running fires or lightning, are singularly regular and symmetrical in general form, though not at all conventional, showing infinite variety in sure unity and harmony of plan. The immensely strong, stately shafts, with rich purplish-brown bark, are free of limbs for a hundred and fifty feet or so, though dense tufts of sprays occur here and there, producing an ornamental effect, while long parallel furrows give a fluted columnar appearance. It shoots forth its limbs with equal boldness in every direction, showing no weather side. On the old trees the main branches are crooked and rugged, and strike rigidly outward mostly at right angles from the trunk, but there is always a certain measured restraint in their reach which keeps them within bounds. No other Sierra tree has foliage so densely massed or outline so finely, firmly drawn and so obediently subordinate to an ideal type. A particularly knotty, angular, ungovernable-looking branch, five to eight feet in diameter and perhaps a thousand years old, may occasionally be seen pushing out from the trunk as if determined to break across the bounds of the regular curve, but like all the others, as soon as the general outline is approached the huge limb dissolves into massy bosses of branchlets and sprays, as if the tree were growing beneath an invisible bell-glass against the sides of which the branches were moulded, while many small, varied departures from the ideal form give the impression of freedom to grow as they like.

Except in picturesque old age, after being struck by

lightning and broken by a thousand snow-storms, this regularity of form is one of the Big Tree's most distinguishing characteristics. Another is the simple sculptural beauty of the trunk and its great thickness as compared with its height and the width of the branches, many of them being from eight to ten feet in diameter at a height of two hundred feet from the ground, and seeming more like finely modeled and sculptured architectural columns than the stems of trees, while the great strong limbs are like rafters supporting the magnificent domed head.

The root-system corresponds in magnitude with the other dimensions of the tree, forming a flat, far-reaching spongy network two hundred feet or more in width without any taproot, and the instep is so grand and fine, so suggestive of endless strength, it is long ere the eye is released to look above it. The natural swell of the roots, though at first sight excessive, gives rise to buttresses no greater than are required for beauty as well as strength, as at once appears when you stand back far enough to see the whole tree in its true proportions. The fineness of the taper of the trunk is shown by its thickness at great heights — a diameter of ten feet at a height of two hundred being, as we have seen, not uncommon. Indeed the boles of but few trees hold their thickness as well as sequoia. Resolute, consummate, determined in form, always beheld with wondering admiration, the Big Tree always seems unfamiliar, standing alone, unrelated, with peculiar physiognomy, awfully solemn and earnest. Nevertheless, there is nothing alien in its looks. The madrona, clad in thin, smooth, red and yellow

bark and big glossy leaves, seems, in the dark coniferous forests of Washington and Vancouver Island, like some lost wanderer from the magnolia groves of the South, while the sequoia, with all its strangeness, seems more at home than any of its neighbors, holding the best right to the ground as the oldest, strongest inhabitant. One soon becomes acquainted with new species of pine and fir and spruce as with friendly people, shaking their outstretched branches like shaking hands, and fondling their beautiful little ones; while the venerable aboriginal sequoia, ancient of other days, keeps you at a distance, taking no notice of you, speaking only to the winds, thinking only of the sky, looking as strange in aspect and behavior among the neighboring trees as would the mastodon or hairy elephant among the homely bears and deer. Only the Sierra juniper is at all like it, standing rigid and unconquerable on glacial pavements for thousands of years, grim, rusty, silent, uncommunicative, with an air of antiquity about as pronounced as that so characteristic of sequoia.

The bark of full-grown trees is from one to two feet thick, rich cinnamon-brown, purplish on young trees and shady parts of the old, forming magnificent masses of color with the underbrush and beds of flowers. Toward the end of winter the trees themselves bloom, while the snow is still eight or ten feet deep. The pistillate flowers are about three eighths of an inch long, pale green, and grow in countless thousands on the ends of the sprays. The staminate are still more abundant, pale yellow, a fourth of an inch long; and when the golden

pollen is ripe they color the whole tree and dust the air and the ground far and near.

The cones are bright grass-green in color, about two and a half inches long, one and a half wide, and are made up of thirty or forty strong, closely packed, rhomboidal scales with four to eight seeds at the base of each. The seeds are extremely small and light, being only from an eighth to a fourth of an inch long and wide, including a filmy surrounding wing, which causes them to glint and waver in falling and enables the wind to carry them considerable distances from the tree.

The faint lisp of snowflakes as they alight is one of the smallest sounds mortal can hear. The sound of falling sequoia seeds, even when they happen to strike on flat leaves or flakes of bark, is about as faint. Very different is the bumping and thudding of the falling cones. Most of them are cut off by the Douglas squirrel and stored for the sake of the seeds, small as they are. In the calm Indian summer these busy harvesters with ivory sickles go to work early in the morning, as soon as breakfast is over, and nearly all day the ripe cones fall in a steady pattering, bumping shower. Unless harvested in this way they discharge their seeds and remain on the trees for many years. In fruitful seasons the trees are fairly laden. On two small specimen branches one and a half and two inches in diameter I counted four hundred and eighty cones. No other California conifer produces nearly so many seeds, excepting perhaps its relative, the redwood of the Coast Mountains. Millions are ripened annually by a single tree, and the product of one of the main groves in a fruitful year

would suffice to plant all the mountain ranges of the world.

The dense tufted sprays make snug nesting places for birds, and in some of the loftiest, leafiest towers of verdure thousands of generations have been reared, the great solemn trees shedding off flocks of merry singers every year from nests, like the flocks of winged seeds from the cones.

The Big Tree keeps its youth far longer than any of its neighbors. Most silver firs are old in their second or third century, pines in their fourth or fifth, while the Big Tree growing beside them is still in the bloom of its youth, juvenile in every feature at the age of old pines, and cannot be said to attain anything like prime size and beauty before its fifteen hundredth year, or under favorable circumstances become old before its three thousandth. Many, no doubt, are much older than this. On one of the King's River giants, thirty-five feet and eight inches in diameter exclusive of bark, I counted upwards of four thousand annual wood-rings, in which there was no trace of decay after all these centuries of mountain weather. There is no absolute limit to the existence of any tree. Their death is due to accidents, not, as of animals, to the wearing out of organs. Only the leaves die of old age, their fall is foretold in their structure; but the leaves are renewed every year and so also are the other essential organs — wood, roots, bark, buds. Most of the Sierra trees die of disease. Thus the magnificent silver firs are devoured by fungi, and comparatively few of them live to see their three hundredth birth year. But nothing hurts the Big Tree. I never saw

one that was sick or showed the slightest sign of decay. It lives on through indefinite thousands of years until burned, blown down, undermined, or shattered by some tremendous lightning-stroke. No ordinary bolt ever seriously hurts sequoia. In all my walks I have seen only one that was thus killed outright. Lightning, though rare in the California lowlands, is common on the Sierra. Almost every day in June and July small thunderstorms refresh the main forest belt. Clouds like snowy mountains of marvelous beauty grow rapidly in the calm sky about midday and cast cooling shadows and showers that seldom last more than an hour. Nevertheless these brief, kind storms wound or kill a good many trees. I have seen silver firs two hundred feet high split into long peeled rails and slivers down to the roots, leaving not even a stump, the rails radiating like the spokes of a wheel from a hole in the ground where the tree stood. But the sequoia, instead of being split and slivered, usually has forty or fifty feet of its brash, knotty top smashed off in short chunks about the size of cord-wood, the beautiful rosy red ruins covering the ground in a circle a hundred feet wide or more. I never saw any that had been cut down to the ground or even to below the branches except one in the Stanislaus Grove, about twelve feet in diameter, the greater part of which was smashed to fragments, leaving only a leafless stump about seventy-five feet high. It is a curious fact that all the very old sequoias have lost their heads by lightning. "All things come to him who waits." But of all living things sequoia is perhaps the only one able to wait long enough to make sure of being struck by lightning.

Thousands of years it stands ready and waiting, offering its head to every passing cloud as if inviting its fate, praying for heaven's fire as a blessing; and when at last the old head is off, another of the same shape immediately begins to grow on. Every bud and branch seems excited, like bees that have lost their queen, and tries hard to repair the damage. Branches that for many centuries have been growing out horizontally at once turn upward and all their branchlets arrange themselves with reference to a new top of the same peculiar curve as the old one. Even the small subordinate branches half-way down the trunk do their best to push up to the top and help in this curious head-making.

The great age of these noble trees is even more wonderful than their huge size, standing bravely up, millennium in, millennium out, to all that fortune may bring them, triumphant over tempest and fire and time, fruitful and beautiful, giving food and shelter to multitudes of small fleeting creatures dependent on their bounty. Other trees may claim to be about as large or as old: Australian gums, Senegal baobabs, Mexican taxodiums, English yews, and venerable Lebanon cedars, trees of renown, some of which are from ten to thirty feet in diameter. We read of oaks that are supposed to have existed ever since the creation, but strange to say I can find no definite accounts of the age of any of these trees, but only estimates based on tradition and assumed average rates of growth. No other known tree approaches the sequoia in grandeur, height and thickness being considered, and none as far as I know has looked down on so many centuries or opens such im-

pressive and suggestive views into history. The majestic monument of the King's River Forest is, as we have seen, fully four thousand years old, and, measuring the rings of annual growth, we find it was no less than twenty-seven feet in diameter at the beginning of the Christian era, while many observations lead me to expect the discovery of others ten or twenty centuries older. As to those of moderate age, there are thousands, mere youths as yet, that —

“Saw the light that shone
On Mahomet's uplifted crescent,
On many a royal gilded throne
And deed forgotten in the present,
. saw the age of sacred trees
And Druid groves and mystic larches,
And saw from forest domes like these
The builder bring his Gothic arches.”

Great trees and groves used to be venerated as sacred monuments and halls of council and worship. But soon after the discovery of the Calaveras Grove one of the grandest trees was cut down for the sake of a stump! The laborious vandals had seen “the biggest tree in the world,” then, forsooth, they must try to see the biggest stump and dance on it.

The growth in height for the first two centuries is usually at the rate of eight to ten inches a year. Of course all very large trees are old, but those equal in size may vary greatly in age on account of variations in soil, closeness or openness of growth, etc. Thus a tree about ten feet in diameter that grew on the side of a meadow was, according to my own count of the wood-

rings, only two hundred and fifty-nine years old at the time it was felled, while another in the same grove, of almost exactly the same size but less favorably situated, was fourteen hundred and forty years old. The Calaveras tree cut for a dance-floor was twenty-four feet in diameter and only thirteen hundred years old, another about the same size was a thousand years older.

The following sequoia notes and measurements are copied from my notebooks:—

Feet.	Diameter. Inches.	Height in Feet.	Age. Years.
0	1 3-4	10	7
0	5	24	20
0	5	25	41
0	6	25	66
0	6	28 1-2	39
0	8	25	29
0	11	45	71
1	0	60	71
3	2	156	260
6	0	192	240
7	3	195	339
7	3	255	506
7	6	240	493
7	7	207	424
9	0	243	259
9	3	222	280
10	6		1440
12			1825 ¹
15			2150 ²
24			1300
25			2300
35	8 inside bark		over 4000

¹ 6 feet in diameter at height of 200 feet.

² 7 feet in diameter at height of 200 feet.

Little, however, is to be learned in confused, hurried tourist trips, spending only a poor noisy hour in a branded grove with a guide. You should go looking and listening alone on long walks through the wild forests and groves in all the seasons of the year. In the spring the winds are balmy and sweet, blowing up and down over great beds of chaparral and through the woods now rich in softening balsam and rosin and the scent of steaming earth. The sky is mostly sunshine, oftentimes tempered by magnificent clouds, the breath of the sea built up into new mountain ranges, warm during the day, cool at night, good flower-opening weather. The young cones of the Big Trees are showing in clusters, their flower time already past, and here and there you may see the sprouting of their tiny seeds of the previous autumn, taking their first feeble hold of the ground and unpacking their tender whorls of cotyledon leaves. Then you will naturally be led on to consider their wonderful growth up and up through the mountain weather, now buried in snow, bent and crinkled, now straightening in summer sunshine like uncoiling ferns, shooting eagerly aloft in youth's joyful prime, and towering serene and satisfied through countless years of calm and storm, the greatest of plants and all but immortal.

Under the huge trees up come the small plant people, putting forth fresh leaves and blossoming in such profusion that the hills and valleys would still seem gloriously rich and glad were all the grand trees away. By the side of melting snowbanks rise the crimson sarcodes, round-topped and massive as the sequoias themselves, and beds of blue violets and larger yellow ones with

leaves curiously lobed; azalea and saxifrage, daisies and lilies on the mossy banks of the streams; and a little way back of them, beneath the trees and on sunny spots on the hills around the groves, wild rose and rubus, spiræa and ribes, mitella, tiarella, campanula, monardella, forget-me-not, etc., many of them as worthy of lore-immortality as the famous Scotch daisy, wanting only a Burns to sing them home to all hearts.

In the midst of this glad plant work the birds are busy nesting, some singing at their work, some silent, others, especially the big pileated woodpeckers, about as noisy as backwoodsmen building their cabins. Then every bower in the groves is a bridal bower, the winds murmur softly overhead, the streams sing with the birds, while from far-off waterfalls and thunder-clouds come deep rolling organ notes.

In summer the days go by in almost constant brightness, cloudless sunshine pouring over the forest roof, while in the shady depths there is the subdued light of perpetual morning. The new leaves and cones are growing fast and make a grand show, seeds are ripening, young birds learning to fly, and myriads of insects glad as birds keeping the air whirling, joy in every wing-beat, their humming and singing blending with the gentle ah-ing of the winds; while at evening every thicket and grove is enchanted by the tranquil chirping of the blessed hylas, the sweetest and most peaceful of sounds, telling the very heart-joy of earth as it rolls through the heavens.

In the autumn the sighing of the winds is softer than ever, the gentle ah-ah-ing filling the sky with a fine uni-

versal mist of music, the birds have little to say, and there is no appreciable stir or rustling among the trees save that caused by the harvesting squirrels. Most of the seeds are ripe and away, those of the trees mottling the sunny air, glinting, glancing through the midst of the merry insect people, rocks and trees, everything alike drenched in gold light, heaven's colors coming down to the meadows and groves, making every leaf a romance, air, earth, and water in peace beyond thought, the great brooding days opening and closing in divine psalms of color.

Winter comes suddenly, arrayed in storms, though to mountaineers silky streamers on the peaks and the tones of the wind give sufficient warning. You hear strange whisperings among the tree-tops, as if the giants were taking counsel together. One after another, nodding and swaying, calling and replying, spreads the news, until all with one accord break forth into glorious song, welcoming the first grand snow-storm of the year, and looming up in the dim clouds and snowdrifts like lighthouse towers in flying scud and spray. Studying the behavior of the giants from some friendly shelter, you will see that even in the glow of their wildest enthusiasm, when the storm roars loudest, they never lose their godlike composure, never toss their arms or bow or wave like the pines, but only slowly, solemnly nod and sway, standing erect, making no sign of strife, none of rest, neither in alliance nor at war with the winds, too calmly, unconsciously noble and strong to strive with or bid defiance to anything. Owing to the density of the leafy branchlets and great breadth of head the Big

Tree carries a much heavier load of snow than any of its neighbors, and after a storm, when the sky clears, the laden trees are a glorious spectacle, worth any amount of cold camping to see. Every bossy limb and crown is solid white, and the immense height of the giants becomes visible as the eye travels the white steps of the colossal tower, each relieved by a mass of blue shadow.

In midwinter the forest depths are as fresh and pure as the crevasses and caves of glaciers. Grouse, nut-hatches, a few woodpeckers, and other hardy birds dwell in the groves all winter, and the squirrels may be seen every clear day frisking about, lively as ever, tunneling to their stores, never coming up empty-mouthed, diving in the loose snow about as quickly as ducks in water, while storms and sunshine sing to each other.

One of the noblest and most beautiful of the late winter sights is the blossoming of the Big Trees like gigantic goldenrods and the sowing of their pollen over all the forest and the snow-covered ground — a most glorious view of Nature's immortal virility and flower-love.

One of my own best excursions among the sequoias was made in the autumn of 1875, when I explored the then unknown or little known sequoia region south of the Mariposa Grove for comprehensive views of the belt, and to learn what I could of the peculiar distribution of the species and its history in general. In particular I was anxious to try to find out whether it had ever been more widely distributed since the glacial period; what conditions favorable or otherwise were affecting it; what were its relations to climate, topo-

graphy, soil, and the other trees growing with it, etc.; and whether, as was generally supposed, the species was nearing extinction. I was already acquainted in a general way with the northern groves, but excepting some passing glimpses gained on excursions into the high Sierra about the headwaters of King's and Kern rivers I had seen nothing of the south end of the belt.

Nearly all my mountaineering has been done on foot, carrying as little as possible, depending on camp-fires for warmth, that so I might be light and free to go wherever my studies might lead. On this sequoia trip, which promised to be long, I was persuaded to take a small wild mule with me to carry provisions and a pair of blankets. The friendly owner of the animal, having noticed that I sometimes looked tired when I came down from the peaks to replenish my bread sack, assured me that his "little Brownie mule" was just what I wanted, tough as a knot, perfectly untirable, low and narrow, just right for squeezing through brush, able to climb like a chipmunk, jump from boulder to boulder like a wild sheep, and go anywhere a man could go. But tough as he was and accomplished as a climber, many a time in the course of our journey when he was jaded and hungry, wedged fast in rocks or struggling in chaparral like a fly in a spiderweb, his troubles were sad to see, and I wished he would leave me and find his way home alone.

We set out from Yosemite about the end of August, and our first camp was made in the well-known Mariposa Grove. Here and in the adjacent pine woods I spent nearly a week, carefully examining the boundaries

of the grove for traces of its greater extension without finding any. Then I struck out into the majestic trackless forest to the southeastward, hoping to find new groves or traces of old ones in the dense silver fir and pine woods about the head of Big Creek, where soil and climate seemed most favorable to their growth, but not a single tree or old monument of any sort came to light until I climbed the high rock called Wamellow by the Indians. Here I obtained telling views of the fertile forest-filled basin of the upper Fresno. Innumerable spires of the noble yellow pine were displayed rising above one another on the braided slopes, and yet nobler sugar pines with superb arms outstretched in the rich autumn light, while away toward the southwest, on the verge of the glowing horizon, I discovered the majestic domelike crowns of Big Trees towering high over all, singly and in close grove congregations. There is something wonderfully attractive in this king tree, even when beheld from afar, that draws us to it with indescribable enthusiasm; its superior height and massive smoothly rounded outlines proclaiming its character in any company; and when one of the oldest attains full stature on some commanding ridge it seems the very god of the woods. I ran back to camp, packed Brownie, steered over the divide and down into the heart of the Fresno Grove. Then, choosing a camp on the side of a brook where the grass was good, I made a cup of tea, and set off free among the brown giants, glorying in the abundance of new work about me. One of the first special things that caught my attention was an extensive landslip. The ground on the side of a stream had given way

to a depth of about fifty feet and with all its trees had been launched into the bottom of the stream ravine. Most of the trees — pines, firs, incense cedar, and sequoia — were still standing erect and uninjured, as if unconscious that anything out of the common had happened. Tracing the ravine alongside the avalanche, I saw many trees whose roots had been laid bare, and in one instance discovered a sequoia about fifteen feet in diameter growing above an old prostrate trunk that seemed to belong to a former generation. This slip had occurred seven or eight years ago, and I was glad to find that not only were most of the Big Trees uninjured, but many companies of hopeful seedlings and saplings were growing confidently on the fresh soil along the broken front of the avalanche. These young trees were already eight or ten feet high, and were shooting up vigorously, as if sure of eternal life, though young pines, firs, and libocedrus were running a race with them for the sunshine with an even start. Farther down the ravine I counted five hundred and thirty-six promising young sequoias on a bed of rough, bouldery soil not exceeding two acres in extent.

The Fresno Big Trees covered an area of about four square miles, and while wandering about surveying the boundaries of the grove, anxious to see every tree, I came suddenly on a handsome log cabin, richly embowered and so fresh and unweathered it was still redolent of gum and balsam like a newly felled tree. Strolling forward, wondering who could have built it, I found an old, weary-eyed, speculative, gray-haired man on a bark stool by the door, reading a book. The discovery

of his hermitage by a stranger seemed to surprise him, but when I explained that I was only a tree-lover sauntering along the mountains to study sequoia, he bade me welcome, made me bring my mule down to a little slanting meadow before his door and camp with him, promising to show me his pet trees and many curious things bearing on my studies.

After supper, as the evening shadows were falling, the good hermit sketched his life in the mines, which in the main was like that of most other pioneer gold-hunters — a succession of intense experiences full of big ups and downs like the mountain topography. Since “ ’49 ” he had wandered over most of the Sierra, sinking innumerable prospect holes like a sailor making soundings, digging new channels for streams, sifting gold-sprinkled boulder and gravel beds with unquenchable energy, life’s noon the meanwhile passing unnoticed into late afternoon shadows. Then, health and gold gone, the game played and lost, like a wounded deer creeping into this forest solitude, he awaits the sundown call. How sad the undertones of many a life here, now the noise of the first big gold battles has died away! How many interesting wrecks lie drifted and stranded in hidden nooks of the gold region! Perhaps no other range contains the remains of so many rare and interesting men. The name of my hermit friend is John A. Nelder, a fine, kind man, who in going into the woods has at last gone home; for he loves nature truly, and realizes that these last shadowy days with scarce a glint of gold in them are the best of all. Birds, squirrels, plants get loving, natural recognition, and delightful it

was to see how sensitively he responded to the silent influences of the woods. His eyes brightened as he gazed on the trees that stand guard around his little home; squirrels and mountain quail came to his call to be fed, and he tenderly stroked the little snow-bent sapling sequoias, hoping they yet might grow straight to the sky and rule the grove. One of the greatest of his trees stands a little way back of his cabin, and he proudly led me to it, bidding me admire its colossal proportions and measure it to see if in all the forest there could be another so grand. It proved to be only twenty-six feet in diameter, and he seemed distressed to learn that the Mariposa Grizzly Giant was larger. I tried to comfort him by observing that his was the taller, finer formed, and perhaps the more favorably situated. Then he led me to some noble ruins, remnants of gigantic trunks of trees that he supposed must have been larger than any now standing, and though they had lain on the damp ground exposed to fire and the weather for centuries, the wood was perfectly sound. Sequoia timber is not only beautiful in color — rose-red when fresh — and as easily worked as pine, but it is almost absolutely unperishable. Build a house of Big Tree logs on granite and that house will last about as long as its foundation. Indeed fire seems to be the only agent that has any appreciable effect on it. From one of these ancient trunk-remnants I cut a specimen of the wood, which in neither color, strength, nor soundness could be distinguished from specimens cut from living trees, although it had certainly lain on the damp forest floor for more than three hundred and eighty years, probably more than

thrice as long. The time in this instance was determined as follows: When the tree from which the specimen was derived fell, it sunk itself into the ground, making a ditch about two hundred feet long and five or six feet deep; and in the middle of this ditch, where a part of the fallen trunk had been burned, a silver fir four feet in diameter and three hundred and eighty years old was growing, showing that the sequoia trunk had lain on the ground three hundred and eighty years plus the unknown time that it lay before the part whose place had been taken by the fir was burned out of the way, and that which had elapsed ere the seed from which the monumental fir sprang fell into the prepared soil and took root. Now because sequoia trunks are never wholly consumed in one forest fire and these fires recur only at considerable intervals, and because sequoia ditches, after being cleared, are often left unplanted for centuries, it becomes evident that the trunk-remnant in question may have been on the ground a thousand years or more. Similar vestiges are common, and together with the root-bowls and long straight ditches of the fallen monarchs, throw a sure light back on the post-glacial history of the species, bearing on its distribution. One of the most interesting features of this grove is the apparent ease and strength and comfortable independence in which the trees occupy their place in the general forest. Seedlings, saplings, young and middle-aged trees are grouped promisingly around the old patriarchs, betraying no sign of approach to extinction. On the contrary, all seem to be saying, "Everything is to our mind and we mean to live forever." But, sad to tell,

a lumber company was building a large mill and flume near by, assuring widespread destruction.

In the cones and sometimes in the lower portion of the trunk and roots there is a dark gritty substance which dissolves readily in water and yields a magnificent purple color. It is a strong astringent, and is said to be used by the Indians as a big medicine. Mr. Nelder showed me specimens of ink he had made from it, which I tried and found good, flowing freely and holding its color well. Indeed everything about the tree seems constant. With these interesting trees, forming the largest of the northern groves, I stopped only a week, for I had far to go before the fall of the snow. The hermit seemed to cling to me and tried to make me promise to winter with him after the season's work was done. Brownie had to be got home, however, and other work awaited me, therefore I could only promise to stop a day or two on my way back to Yosemite and give him the forest news.

The next two weeks were spent in the wide basin of the San Joaquin, climbing innumerable ridges and surveying the far-extending sea of pines and firs. But not a single sequoia crown appeared among them all, nor any trace of a fallen trunk, until I had crossed the south divide of the basin, opposite Dinky Creek, one of the northmost tributaries of King's River. On this stream there is a small grove, said to have been discovered a few years before my visit by two hunters in pursuit of a wounded bear. Just as I was fording one of the branches of Dinky Creek I met a shepherd, and when I asked him whether he knew anything about the

Big Trees of the neighborhood he replied, "I know all about them, for I visited them only a few days ago and pastured my sheep in the grove." He was fresh from the East, and as this was his first summer in the Sierra I was curious to learn what impression the sequoias had made on him. When I asked whether it was true that the Big Trees were really so big as people say, he warmly replied, "Oh, yes, sir, you bet. They're whales. I never used to believe half I heard about the awful size of California trees, but they're monsters and no mistake. One of them over here, they tell me, is the biggest tree in the whole world, and I guess it is, for it's forty foot through and as many good long paces around." He was very earnest, and in fullness of faith offered to guide me to the grove that I might not miss seeing this biggest tree. A fair measurement four feet from the ground, above the main swell of the roots, showed a diameter of only thirty-two feet, much to the young man's disgust. "Only thirty-two feet," he lamented, "only thirty-two, and I always thought it was forty!" Then with a sigh of relief, "No matter, that's a big tree, anyway; no fool of a tree, sir, that you can cut a plank out of thirty feet broad, straight-edged, no bark, all good wood, sound and solid. It would make the brag white pine planks from old Maine look like laths." A good many other fine specimens are distributed along three small branches of the creek, and I noticed several thrifty moderate-sized sequoias growing on a granite ledge, apparently as independent of deep soil as the pines and firs, clinging to seams and fissures and sending their roots far abroad in search of moisture.

The creek is very clear and beautiful, gliding through tangles of shrubs and flower-beds, gay bee and butterfly pastures, the grove's own stream, pure sequoia water, flowing all the year, every drop filtered through moss and leaves and the myriad spongy rootlets of the giant trees. One of the most interesting features of the grove is a small waterfall with a flowery, ferny, clear brimming pool at the foot of it. How cheerily it sings the songs of the wilderness, and how sweet its tones! You seem to taste as well as hear them, while only the subdued roar of the river in the deep cañon reaches up into the grove, sounding like the sea and the winds. So charming a fall and pool in the heart of so glorious a forest good pagans would have consecrated to some lovely nymph.

Hence down into the main King's River cañon, a mile deep, I led and dragged and shoved my patient, much-enduring mule through miles and miles of gardens and brush, fording innumerable streams, crossing savage rock-slopes and taluses, scrambling, sliding through gulches and gorges, then up into the grand sequoia forests of the south side, cheered by the royal crowns displayed on the narrow horizon. In a day and a half we reached the sequoia woods in the neighborhood of the old Thomas Mill Flat. Thence striking off northeastward I found a magnificent forest nearly six miles long by two in width, composed mostly of Big Trees, with outlying groves as far east as Boulder Creek. Here five or six days were spent, and it was delightful to learn from countless trees, old and young, how comfortably they were settled down in concordance with climate and soil and their noble neighbors.

Imbedded in these majestic woods there are numerous meadows, around the sides of which the Big Trees press close together in beautiful lines, showing their grandeur openly from the ground to their domed heads in the sky. The young trees are still more numerous and exuberant than in the Fresno and Dinky groves, standing apart in beautiful family groups, or crowding around the old giants. For every venerable lightning-stricken tree, there is one or more in all the glory of prime, and for each of these, many young trees and crowds of saplings. The young trees express the grandeur of their race in a way indefinable by any words at my command. When they are five or six feet in diameter and a hundred and fifty feet high, they seem like mere baby saplings as many inches in diameter, their juvenile habit and gestures completely veiling their real size, even to those who, from long experience, are able to make fair approximation in their measurements of common trees. One morning I noticed three airy, spiry, quick-growing babies on the side of a meadow, the largest of which I took to be about eight inches in diameter. On measuring it, I found to my astonishment it was five feet six inches in diameter, and about a hundred and forty feet high.

On a bed of sandy ground fifteen yards square, which had been occupied by four sugar pines, I counted ninety-four promising seedlings, an instance of *Sequoia* gaining ground from its neighbors. Here also I noted eighty-six young sequoias from one to fifty feet high on less than half an acre of ground that had been cleared and prepared for their reception by fire. This was a small bay

burned into dense chaparral, showing that fire, the great destroyer of tree life, is sometimes followed by conditions favorable for new growths. Sufficient fresh soil, however, is furnished for the constant renewal of the forest by the fall of old trees without the help of any other agent, — burrowing animals, fire, flood, landslip, etc., — for the ground is thus turned and stirred as well as cleared, and in every roomy, shady hollow beside the walls of upturned roots many hopeful seedlings spring up.

The largest, and as far as I know the oldest, of all the King's River trees that I saw is the majestic stump, already referred to, about a hundred and forty feet high, which above the swell of the roots is thirty-five feet and eight inches inside the bark, and over four thousand years old. It was burned nearly half through at the base, and I spent a day in chopping off the charred surface, cutting into the heart, and counting the wood-rings with the aid of a lens. I made out a little over four thousand without difficulty or doubt, but I was unable to get a complete count, owing to confusion in the rings where wounds had been healed over. Judging by what is left of it, this was a fine, tall, symmetrical tree nearly forty feet in diameter before it lost its bark. In the last sixteen hundred and seventy-two years the increase in diameter was ten feet. A short distance south of this forest lies a beautiful grove, now mostly included in the General Grant National Park. I found many shake-makers at work in it, access to these magnificent woods having been made easy by the old mill wagon-road. The Park is only two miles square, and the largest of its many fine

trees is the General Grant, so named before the date of my first visit, twenty-eight years ago, and said to be the largest tree in the world, though above the craggy bulging base the diameter is less than thirty feet. The Sanger Lumber Company owns nearly all the King's River groves outside the Park, and for many years the mills have been spreading desolation without any advantage.

One of the shake-makers directed me to an "old snag bigger 'n Grant." It proved to be a huge black charred stump thirty-two feet in diameter, the next in size to the grand monument mentioned above.

I found a scattered growth of Big Trees extending across the main divide to within a short distance of Hyde's Mill, on a tributary of Dry Creek. The mountain ridge on the south side of the stream was covered from base to summit with a most superb growth of Big Trees. What a picture it made! In all my wide forest wanderings I had seen none so sublime. Every tree of all the mighty host seemed perfect in beauty and strength, and their majestic domed heads, rising above one another on the mountain-slope, were most impressingly displayed, like a range of bossy upswelling cumulus clouds on a calm sky.

In this glorious forest the mill was busy, forming a sore, sad centre of destruction, though small as yet, so immensely heavy was the growth. Only the smaller and most accessible of the trees were being cut. The logs, from three to ten or twelve feet in diameter, were dragged or rolled with long strings of oxen into a chute and sent flying down the steep mountain-side to the mill

flat, where the largest of them were blasted into manageable dimensions for the saws. And as the timber is very brash, by this blasting and careless felling on uneven ground, half or three fourths of the timber was wasted.

I spent several days exploring the ridge and counting the annual wood-rings on a large number of stumps in the clearings, then replenished my bread sack and pushed on southward. All the way across the broad rough basins of the Kaweah and Tule rivers Sequoia ruled supreme, forming an almost continuous belt for sixty or seventy miles, waving up and down in huge massy mountain billows in compliance with the grand glacier-ploughed topography.

Day after day, from grove to grove, cañon to cañon, I made a long, wavering way, terribly rough in some places for Brownie, but cheery for me, for Big Trees were seldom out of sight. We crossed the rugged, picturesque basins of Redwood Creek, the North Fork of the Kaweah, and Marble Fork gloriously forested, and full of beautiful cascades and falls, sheer and slanting, infinitely varied with broad curly foam fleeces and strips of embroidery in which the sunbeams revel. Thence we climbed into the noble forest on the Marble and Middle Fork Divide. After a general exploration of the Kaweah basin, this part of the sequoia belt seemed to me the finest, and I then named it "the Giant Forest." It extends, a magnificent growth of giants grouped in pure temple groves, ranged in colonnades along the sides of meadows, or scattered among the other trees, from the granite headlands overlooking the hot foothills and plains of the San Joaquin back to within a few miles of

the old glacier fountains at an elevation of 5000 to 8400 feet above the sea.

When I entered this sublime wilderness the day was nearly done, the trees with rosy, glowing countenances seemed to be hushed and thoughtful, as if waiting in conscious religious dependence on the sun, and one naturally walked softly and awe-stricken among them. I wandered on, meeting nobler trees where all are noble, subdued in the general calm, as if in some vast hall pervaded by the deepest sanctities and solemnities that sway human souls. At sundown the trees seemed to cease their worship and breathe free. I heard the birds going home. I too sought a home for the night on the edge of a level meadow where there is a long, open view between the evenly ranked trees standing guard along its sides. Then after a good place was found for poor Brownie, who had had a hard, weary day sliding and scrambling across the Marble cañon, I made my bed and supper and lay on my back looking up to the stars through pillared arches finer far than the pious heart of man, telling its love, ever reared. Then I took a walk up the meadow to see the trees in the pale light. They seemed still more marvelously massive and tall than by day, heaving their colossal heads into the depths of the sky, among the stars, some of which appeared to be sparkling on their branches like flowers. I built a big fire that vividly illumined the huge brown boles of the nearest trees and the little plants and cones and fallen leaves at their feet, keeping up the show until I fell asleep to dream of boundless forests and trail-building for Brownie.

Joyous birds welcomed the dawn; and the squirrels, now their food cones were ripe and had to be quickly gathered and stored for winter, began their work before sunrise. My tea-and-bread-crumb breakfast was soon done, and leaving jaded Brownie to feed and rest I sauntered forth to my studies. In every direction Sequoia ruled the woods. Most of the other big conifers were present here and there, but not as rivals or companions. They only served to thicken and enrich the general wilderness. Trees of every age cover craggy ridges as well as the deep moraine-soiled slopes, and plant their magnificent shafts along every brookside and meadow. Bogs and meadows are rare or entirely wanting in the isolated groves north of King's River; here there is a beautiful series of them lying on the broad top of the main dividing ridge, imbedded in the very heart of the **mammoth** woods as if for ornament, their smooth, plushy bosoms kept bright and fertile by streams and sunshine.

Resting awhile on one of the most beautiful of them when the sun was high, it seemed impossible that any other forest picture in the world could rival it. There lay the grassy, flowery lawn, three fourths of a mile long, smoothly outspread, basking in mellow autumn light, colored brown and yellow and purple, streaked with lines of green along the streams, and ruffled here and there with patches of ledum and scarlet vaccinium. Around the margin there is first a fringe of azalea and willow bushes, colored orange yellow, enlivened with vivid dashes of red cornel, as if painted. Then up spring the mighty walls of verdure three hundred feet high, the

brown fluted pillars so thick and tall and strong they seem fit to uphold the sky; the dense foliage, swelling forward in rounded bosses on the upper half, variously shaded and tinted, that of the young trees dark green, of the old yellowish. An aged lightning-smitten patriarch standing a little forward beyond the general line with knotty arms outspread was covered with gray and yellow lichens and surrounded by a group of saplings whose slender spires seemed to lack not a single leaf or spray in their wondrous perfection. Such was the Kaweah meadow picture that golden afternoon, and as I gazed every color seemed to deepen and glow as if the progress of the fresh sun-work were visible from hour to hour, while every tree seemed religious and conscious of the presence of God. A free man revels in a scene like this and time goes by unmeasured. I stood fixed in silent wonder or sauntered about shifting my points of view, studying the physiognomy of separate trees, and going out to the different color-patches to see how they were put on and what they were made of, giving free expression to my joy, exulting in Nature's wild immortal vigor and beauty, never dreaming any other human being was near. Suddenly the spell was broken by dull bumping, thudding sounds, and a man and horse came in sight at the farther end of the meadow, where they seemed sadly out of place. A good big bear or mastodon or *megatherium* would have been more in keeping with the old mammoth forest. Nevertheless, it is always pleasant to meet one of our own species after solitary rambles, and I stepped out where I could be seen and shouted, when the rider reined in his galloping mustang and waited my

approach. He seemed too much surprised to speak until, laughing in his puzzled face, I said I was glad to meet a fellow mountaineer in so lonely a place. Then he abruptly asked, "What are you doing? How did you get here?" I explained that I came across the cañons from Yosemite and was only looking at the trees. "Oh then, I know," he said, greatly to my surprise, "you must be John Muir." He was herding a band of horses that had been driven up a rough trail from the lowlands to feed on these forest meadows. A few handfuls of crumb detritus was all that was left in my bread sack, so I told him that I was nearly out of provision and asked whether he could spare me a little flour. "Oh yes, of course you can have anything I've got," he said. "Just take my track and it will lead you to my camp in a big hollow log on the side of a meadow two or three miles from here. I must ride after some strayed horses, but I'll be back before night; in the mean time make yourself at home." He galloped away to the northward; I returned to my own camp, saddled Brownie, and by the middle of the afternoon discovered his noble den in a fallen sequoia hollowed by fire — a spacious log house of one log, carbon-lined, centuries old yet sweet and fresh, weather-proof, earthquake-proof, likely to outlast the most durable stone castle, and commanding views of garden and grove grander far than the richest king ever enjoyed. Brownie found plenty of grass and I found bread, which I ate with views from the big round, ever-open door. Soon the good Samaritan mountaineer came in, and I enjoyed a famous rest listening to his observations on trees, animals, adventures, etc., while he was busily pre-

paring supper. In answer to inquiries concerning the distribution of the Big Trees he gave a good deal of particular information of the forest we were in, and he had heard that the species extended a long way south, he knew not how far. I wandered about for several days within a radius of six or seven miles of the camp, surveying boundaries, measuring trees, and climbing the highest points for general views. From the south side of the divide I saw telling ranks of sequoia-crowned headlands stretching far into the hazy distance, and plunging vaguely down into profound cañon depths foreshadowing weeks of good work. I had now been out on the trip more than a month, and I began to fear my studies would be interrupted by snow, for winter was drawing nigh. "Where there is n't a way make a way," is easily said when no way at the time is needed, but to the Sierra explorer with a mule traveling across the cañon lines of drainage the brave old phrase becomes heavy with meaning. There are ways across the Sierra graded by glaciers, well marked, and followed by men and beasts and birds, and one of them even by locomotives; but none natural or artificial along the range, and the explorer who would thus travel at right angles to the glacial ways must traverse cañons and ridges extending side by side in endless succession, roughened by side gorges and gulches and stubborn chaparral, and defended by innumerable sheer-fronted precipices. My own ways are easily made in any direction, but Brownie, though one of the toughest and most skillful of his race, was oftentimes discouraged for want of hands, and caused endless work. Wild at first, he was tame enough

now; and when turned loose he not only refused to run away, but as his troubles increased came to depend on me in such a pitiful, touching way, I became attached to him and helped him as if he were a good-natured boy in distress, and then the labor grew lighter. Bidding good-by to the kind sequoia cave-dweller, we vanished again in the wilderness, drifting slowly southward, sequoias on every ridge-top beckoning and pointing the way.

In the forest between the Middle and East forks of the Kaweah, I met a great fire, and as fire is the master scourge and controller of the distribution of trees, I stopped to watch it and learn what I could of its works and ways with the giants. It came racing up the steep chaparral-covered slopes of the East Fork cañon with passionate enthusiasm in a broad cataract of flames, now bending down low to feed on the green bushes, devouring acres of them at a breath, now towering high in the air as if looking abroad to choose a way, then stooping to feed again, the lurid flapping surges and the smoke and terrible rushing and roaring hiding all that is gentle and orderly in the work. But as soon as the deep forest was reached the ungovernable flood became calm like a torrent entering a lake, creeping and spreading beneath the trees where the ground was level or sloped gently, slowly nibbling the cake of compressed needles and scales with flames an inch high, rising here and there to a foot or two on dry twigs and clumps of small bushes and brome grass. Only at considerable intervals were fierce bonfires lighted, where heavy branches broken off by snow had accumulated, or around some venerable giant whose head had been stricken off by lightning.

I tethered Brownie on the edge of a little meadow beside a stream a good safe way off, and then cautiously chose a camp for myself in a big stout hollow trunk not likely to be crushed by the fall of burning trees, and made a bed of ferns and boughs in it. The night, however, and the strange wild fireworks were too beautiful and exciting to allow much sleep. There was no danger of being chased and hemmed in, for in the main forest belt of the Sierra, even when swift winds are blowing, fires seldom or never sweep over the trees in broad all-embracing sheets as they do in the dense Rocky Mountain woods and in those of the Cascade Mountains of Oregon and Washington. Here they creep from tree to tree with tranquil deliberation, allowing close observation, though caution is required in venturing around the burning giants to avoid falling limbs and knots and fragments from dead shattered tops. Though the day was best for study, I sauntered about night after night, learning what I could and admiring the wonderful show vividly displayed in the lonely darkness, the ground fire advancing in long crooked lines gently grazing and smoking on the close-pressed leaves, springing up in thousands of little jets of pure flame on dry tassels and twigs, and tall spires and flat sheets with jagged flapping edges dancing here and there on grass tufts and bushes, big bonfires blazing in perfect storms of energy where heavy branches mixed with small ones lay smashed together in hundred-cord piles, big red arches between spreading root-swells and trees growing close together, huge fire-mantled trunks on the hill-slopes glowing like bars of hot iron, violet-colored fire running up the tall

trees, tracing the furrows of the bark in quick quivering rills, and lighting magnificent torches on dry shattered tops, and ever and anon, with a tremendous roar and burst of light, young trees clad in low-descending feathery branches vanishing in one flame two or three hundred feet high.

One of the most impressive and beautiful sights was made by the great fallen trunks lying on the hillsides all red and glowing like colossal iron bars fresh from a furnace, two hundred feet long some of them, and ten to twenty feet thick. After repeated burnings have consumed the bark and sapwood, the sound charred surface, being full of cracks and sprinkled with leaves, is quickly overspread with a pure, rich, furred, ruby glow almost flameless and smokeless, producing a marvelous effect in the night. Another grand and interesting sight is the fire on the tops of the largest living trees flaming above the green branches at a height of perhaps two hundred feet, entirely cut off from the ground fires, and looking like signal beacons on watch-towers. From one standpoint I sometimes saw a dozen or more, those in the distance looking like great stars above the forest roof. At first I could not imagine how these sequoia lamps were lighted, but the very first night, strolling about waiting and watching, I saw the thing done again and again. The thick, fibrous bark of old trees is divided by deep, nearly continuous furrows, the sides of which are bearded with the bristling ends of fibres broken by the growth swelling of the trunk, and when the fire comes creeping around the feet of the trees, it runs up these bristly furrows in lovely pale-blue quivering, bick-

ering rills of flame with a low, earnest whispering sound to the lightning-shattered top of the trunk, which, in the dry Indian summer, with perhaps leaves and twigs and squirrel-gnawed cone-scales and seed-wings lodged in it, is readily ignited. These lamp-lighting rills, the most beautiful fire streams I ever saw, last only a minute or two, but the big lamps burn with varying brightness for days and weeks, throwing off sparks like the spray of a fountain, while ever and anon a shower of red coals comes sifting down through the branches, followed at times with startling effect by a big burned-off chunk weighing perhaps half a ton.

The immense bonfires where fifty or a hundred cords of peeled, split, smashed wood has been piled around some old giant by a single stroke of lightning is another grand sight in the night. The light is so great I found I could read common print three hundreds yards from them, and the illumination of the circle of onlooking trees is indescribably impressive. Other big fires, roaring and booming like waterfalls, were blazing on the upper sides of trees on hill-slopes, against which limbs broken off by heavy snow had rolled, while branches high overhead, tossed and shaken by the ascending air current, seemed to be writhing in pain. Perhaps the most startling phenomenon of all was the quick death of childlike sequoias only a century or two of age. In the midst of the other comparatively slow and steady fire work one of these tall, beautiful saplings, leafy and branchy, would be seen blazing up suddenly, all in one heaving, booming, passionate flame reaching from the ground to the top of the tree and fifty to a hundred feet or

more above it, with a smoke column bending forward and streaming away on the upper, free-flowing wind. To burn these green trees a strong fire of dry wood beneath them is required, to send up a current of air hot enough to distill inflammable gases from the leaves and sprays; then instead of the lower limbs gradually catching fire and igniting the next and next in succession, the whole tree seems to explode almost simultaneously, and with awful roaring and throbbing a round, tapering flame shoots up two or three hundred feet, and in a second or two is quenched, leaving the green spire a black, dead mast, bristled and roughened with down-curling boughs. Nearly all the trees that have been burned down are lying with their heads uphill, because they are burned far more deeply on the upper side, on account of broken limbs rolling down against them to make hot fires, while only leaves and twigs accumulate on the lower side and are quickly consumed without injury to the tree. But green, resinless sequoia wood burns very slowly, and many successive fires are required to burn down a large tree. Fires can run only at intervals of several years, and when the ordinary amount of fire-wood that has rolled against the gigantic trunk is consumed, only a shallow scar is made, which is slowly deepened by recurring fires until far beyond the centre of gravity, and when at last the tree falls, it of course falls uphill. The healing folds of wood layers on some of the deeply burned trees show that centuries have elapsed since the last wounds were made.

When a great sequoia falls, its head is smashed into fragments about as small as those made by lightning,

which are mostly devoured by the first running, hunting fire that finds them, while the trunk is slowly wasted away by centuries of fire and weather. One of the most interesting fire actions on the trunk is the boring of those great tunnel-like hollows through which horsemen may gallop. All of these famous hollows are burned out of the solid wood, for no sequoia is ever hollowed by decay. When the tree falls the brash trunk is often broken straight across into sections as if sawed; into these joints the fire creeps, and, on account of the great size of the broken ends, burns for weeks or even months without being much influenced by the weather. After the great glowing ends fronting each other have burned so far apart that their rims cease to burn, the fire continues to work on in the centres, and the ends become deeply concave. Then heat being radiated from side to side, the burning goes on in each section of the trunk independent of the other, until the diameter of the bore is so great that the heat radiated across from side to side is not sufficient to keep them burning. It appears, therefore, that only very large trees can receive the fire-auger and have any shell rim left.

Fire attacks the large trees only at the ground, consuming the fallen leaves and humus at their feet, doing them but little harm unless considerable quantities of fallen limbs happen to be piled about them, their thick mail of spongy, unpitchy, almost unburnable bark affording strong protection. Therefore the oldest and most perfect unscarred trees are found on ground that is nearly level, while those growing on hillsides, against which falling branches roll, are always deeply scarred on

the upper side, and as we have seen are sometimes burned down. The saddest thing of all was to see the hopeful seedlings, many of them crinkled and bent with the pressure of winter snow, yet bravely aspiring at the top, helplessly perishing, and young trees, perfect spires of verdure and naturally immortal, suddenly changed to dead masts. Yet the sun looked cheerily down the openings in the forest roof, turning the black smoke to a beautiful brown, as if all was for the best.

Beneath the smoke-clouds of the suffering forest we again pushed southward, descending a side gorge of the East Fork cañon and climbing another into new forests and groves not a whit less noble. Brownie, the meanwhile, had been resting, while I was weary and sleepy with almost ceaseless wanderings, giving only an hour or two each night or day to sleep in my log home. Way-making here seemed to become more and more difficult, "impossible," in common phrase, for four-legged travelers. Two or three miles was all the day's work as far as distance was concerned. Nevertheless, just before sundown we found a charming camp-ground with plenty of grass, and a forest to study that had felt no fire for many a year. The camp-hollow was evidently a favorite home of bears. On many of the trees, at a height of six or eight feet, their autographs were inscribed in strong, free, flowing strokes on the soft bark where they had stood up like cats to stretch their limbs. Using both hands, every claw a pen, the handsome curved lines of their writing take the form of remarkably regular interlacing pointed arches, producing a truly ornamental effect. I looked and listened, half expecting

to see some of the writers alarmed and withdrawing from the unwonted disturbance. Brownie also looked and listened, for mules fear bears instinctively and have a very keen nose for them. When I turned him loose, instead of going to the best grass, he kept cautiously near the camp-fire for protection, but was careful not to step on me. The great starry night passed away in deep peace and the rosy morning sunbeams were searching the grove ere I awoke from a long, blessed sleep.

The breadth of the sequoia belt here is about the same as on the north side of the river, extending, rather thin and scattered in some places, among the noble pines from near the main forest belt of the range well back towards the frosty peaks, where most of the trees are growing on moraines but little changed as yet.

Two days' scramble above Bear Hollow I enjoyed an interesting interview with deer. Soon after sunrise a little company of four came to my camp in a wild garden imbedded in chaparral, and after much cautious observation quietly began to eat breakfast with me. Keeping perfectly still I soon had their confidence, and they came so near I found no difficulty, while admiring their graceful manners and gestures, in determining what plants they were eating, thus gaining a far finer knowledge and sympathy than comes by killing and hunting.

Indian summer gold with scarce a whisper of winter in it was painting the glad wilderness in richer and yet richer colors as we scrambled across the South cañon into the basin of the Tule. Here the Big Tree forests are still more extensive, and furnished abundance of work in tracing boundaries and gloriously crowned

ridges up and down, back and forth, exploring, studying, admiring, while the great measureless days passed on and away uncounted. But in the calm of the camp-fire the end of the season seemed near. Brownie too often brought snow-storms to mind. He became doubly jaded, though I never rode him, and always left him in camp to feed and rest while I explored. The invincible bread business also troubled me again; the last mealy crumbs were consumed, and grass was becoming scarce even in the roughest rock-piles, naturally inaccessible to sheep. One afternoon, as I gazed over the rolling bossy sequoia billows stretching interminably southward, seeking a way and counting how far I might go without food, a rifle-shot rang out sharp and clear. Marking the direction, I pushed gladly on, hoping to find some hunter who could spare a little food. Within a few hundred rods I struck the track of a shod horse, which led to the camp of two Indian shepherds. One of them was cooking supper when I arrived. Glancing curiously at me, he saw that I was hungry, and gave me some mutton and bread, and said encouragingly as he pointed to the west, "Putty soon Indian come, heap speak English." Toward sundown two thousand sheep beneath a cloud of dust came streaming through the grand sequoias to a meadow below the camp, and presently the English-speaking shepherd came in, to whom I explained my wants and what I was doing. Like most white men, he could not conceive how anything other than gold could be the object of such rambles as mine, and asked repeatedly whether I had discovered any mines. I tried to make him talk about trees and the

wild animals, but unfortunately he proved to be a tame Indian from the Tule Reservation, had been to school, claimed to be civilized, and spoke contemptuously of "wild Indians," and so of course his inherited instincts were blurred or lost. The Big Trees, he said, grew far south, for he had seen them in crossing the mountains from Porterville to Lone Pine. In the morning he kindly gave me a few pounds of flour, and assured me that I would get plenty more at a sawmill on the South Fork if I reached it before it was shut down for the season.

Of all the Tule basin forest the section on the North Fork seemed the finest, surpassing, I think, even the Giant Forest of the Kaweah. Southward from here, though the width and general continuity of the belt is well sustained, I thought I could detect a slight falling off in the height of the trees and in closeness of growth. All the basin was swept by swarms of hooved locusts, the southern part over and over again, until not a leaf within reach was left on the wettest bogs, the outer edges of the thorniest chaparral beds, or even on the young conifers, which, unless under the stress of dire famine, sheep never touch. Of course Brownie suffered, though I made diligent search for grassy sheep-proof spots. Turning him loose one evening on the side of a carex bog, he dolefully prospected the desolate neighborhood without finding anything that even a starving mule could eat. Then, utterly discouraged, he stole up behind me while I was bent over on my knees making a fire for tea, and in a pitiful mixture of bray and neigh, begged for help. It was a mighty touching prayer, and I answered it as well as I could with half of what was

left of a cake made from the last of the flour given me by the Indians, hastily passing it over my shoulder, and saying, "Yes, poor fellow, I know, but soon you'll have plenty. To-morrow down we go to alfalfa and barley," speaking to him as if he were human, as through stress of trouble plainly he was. After eating his portion of bread he seemed content, for he said no more, but patiently turned away to gnaw leafless ceanothus stubs. Such clinging, confiding dependence after all our scrambles and adventures together was very touching, and I felt conscience-stricken for having led him so far in so rough and desolate a country. "Man," says Lord Bacon, "is the god of the dog." So, also, he is of the mule and many other dependent fellow mortals.

Next morning I turned westward, determined to force a way straight to pasture, letting Sequoia wait. Fortunately ere we had struggled down through half a mile of chaparral we heard a mill whistle, for which we gladly made a bee-line. At the sawmill we both got a good meal, then, taking the dusty lumber road, pursued our way to the lowlands. The nearest good pasture I counted might be thirty or forty miles away. But scarcely had we gone ten when I noticed a little log cabin a hundred yards or so back from the road, and a tall man straight as a pine standing in front of it observing us as we came plodding down through the dust. Seeing no sign of grass or hay, I was going past without stopping, when he shouted, "Travelin'?" Then drawing nearer, "Where have you come from? I did n't notice you go up." I replied I had come through the

woods from the north, looking at the trees. "Oh, then, you must be John Muir. Halt, you're tired; come and rest and I'll cook for you." Then I explained that I was tracing the sequoia belt, that on account of sheep my mule was starving, and therefore must push on to the lowlands. "No, no," he said, "that corral over there is full of hay and grain. Turn your mule into it. I don't own it, but the fellow who does is hauling lumber, and it will be all right. He's a white man. Come and rest. How tired you must be! The Big Trees don't go much farther south, nohow. I know the country up there, have hunted all over it. Come and rest, and let your little doggone rat of a mule rest. How in heavens did you get him across the cañons — roll him? or carry him? He's poor, but he'll get fat, and I'll give you a horse and go with you up the mountains, and while you're looking at the trees I'll go hunting. It will be a short job, for the end of the Big Trees is not far." Of course I stopped. No true invitation is ever declined. He had been hungry and tired himself many a time in the Rocky Mountains as well as in the Sierra. Now he owned a band of cattle and lived alone. His cabin was about eight by ten feet, the door at one end, a fireplace at the other, and a bed on one side fastened to the logs. Leading me in without a word of mean apology, he made me lie down on the bed, then reached under it, brought forth a sack of apples and advised me to keep "chawing" at them until he got supper ready. Finer, braver hospitality I never found in all this good world so often called selfish.

Next day with hearty, easy alacrity the mountaineer

procured horses, prepared and packed provisions, and got everything ready for an early start the following morning. Well mounted, we pushed rapidly up the South Fork of the river and soon after noon were among the giants once more. On the divide between the Tule and Deer Creek a central camp was made, and the mountaineer spent his time in deer-hunting, while with provisions for two or three days I explored the woods, and in accordance with what I had been told soon reached the southern extremity of the belt on the South Fork of Deer Creek. To make sure, I searched the woods a considerable distance south of the last Deer Creek grove, passed over into the basin of the Kern, and climbed several high points commanding extensive views over the sugar pine woods, without seeing a single sequoia crown in all the wide expanse to the southward. On the way back to camp, however, I was greatly interested in a grove I discovered on the east side of the Kern River divide, opposite the North Fork of Deer Creek. The height of the pass where the species crossed over is about seven thousand feet, and I heard of still another grove whose waters drain into the upper Kern opposite the Middle Fork of the Tule.

It appears, therefore, that though the sequoia belt is two hundred and sixty miles long, most of the trees are on a section to the south of King's River only about seventy miles in length. But though the area occupied by the species increases so much to the southward, there is but little difference in the size of the trees. A diameter of twenty feet and height of two hundred and seventy-five is perhaps about the average for anything like ma-

ture and favorably situated trees. Specimens twenty-five feet in diameter are not rare, and a good many approach a height of three hundred feet. Occasionally one meets a specimen thirty feet in diameter, and rarely one that is larger. The majestic stump on King's River is the largest I saw and measured on the entire trip. Careful search around the boundaries of the forests and groves and in the gaps of the belt failed to discover any trace of the former existence of the species beyond its present limits. On the contrary, it seems to be slightly extending its boundaries; for the outstanding stragglers, occasionally met a mile or two from the main bodies, are young instead of old monumental trees. Ancient ruins and the ditches and root-bowls the big trunks make in falling were found in all the groves, but none outside of them. We may therefore conclude that the area covered by the species has not been diminished during the last eight or ten thousand years, and probably not at all in post-glacial times. For admitting that upon those areas supposed to have been once covered by *Sequoia* every tree may have fallen, and that fire and the weather had not left a vestige of them, many of the ditches made by the fall of the ponderous trunks, weighing five hundred to nearly a thousand tons, and the bowls made by their upturned roots would remain visible for thousands of years after the last remnants of the trees had vanished. Some of these records would doubtless be effaced in a comparatively short time by the inwashing of sediments, but no inconsiderable part of them would remain enduringly engraved on flat ridge tops, almost wholly free from such action.

In the northern groves, the only ones that at first came under the observation of students, there are but few seedlings and young trees to take the places of the old ones. Therefore the species was regarded as doomed to speedy extinction, as being only an expiring remnant vanquished in the so-called struggle for life, and shoved into its last strongholds in moist glens where conditions are exceptionally favorable. But the majestic continuous forests of the south end of the belt create a very different impression. Here, as we have seen, no tree in the forest is more enduringly established. Nevertheless it is often-times vaguely said that the Sierra climate is drying out, and that this oncoming, constantly increasing drought will of itself surely extinguish King Sequoia, though sections of wood-rings show that there has been no appreciable change of climate during the last forty centuries. Furthermore, that Sequoia can grow and is growing on as dry ground as any of its neighbors or rivals, we have seen proved over and over again. "Why, then," it will be asked, "are the Big Tree groves always found on well-watered spots?" Simply because Big Trees give rise to streams. It is a mistake to suppose that the water is the cause of the groves being there. On the contrary, the groves are the cause of the water being there. The roots of this immense tree fill the ground, forming a sponge which hoards the bounty of the clouds and sends it forth in clear perennial streams instead of allowing it to rush headlong in short-lived destructive floods. Evaporation is also checked, and the air kept still in the shady sequoia depths, while thirsty robber winds are shut out.

Since, then, it appears that Sequoia can and does grow on as dry ground as its neighbors and that the greater moisture found with it is an effect rather than a cause of its presence, the notions as to the former greater extension of the species and its near approach to extinction, based on its supposed dependence on greater moisture, are seen to be erroneous. Indeed, all my observations go to show that in case of prolonged drought the sugar pines and firs would die before Sequoia. Again, if the restricted and irregular distribution of the species be interpreted as the result of the desiccation of the range, then, instead of increasing in individuals toward the south, where the rainfall is less, it should diminish.

If, then, its peculiar distribution has not been governed by superior conditions of soil and moisture, by what has it been governed? Several years before I made this trip, I noticed that the northern groves were located on those parts of the Sierra soil-belt that were first laid bare and opened to preëmption when the ice-sheet began to break up into individual glaciers. And when I was examining the basin of the San Joaquin and trying to account for the absence of Sequoia, when every condition seemed favorable for its growth, it occurred to me that this remarkable gap in the belt is located in the channel of the great ancient glacier of the San Joaquin and King's River basins, which poured its frozen floods to the plain, fed by the snows that fell on more than fifty miles of the Summit peaks of the range. Constantly brooding on the question, I next perceived that the great gap in the belt to the northward, forty miles wide, be-

tween the Stanislaus and Tuolumne groves, occurs in the channel of the great Stanislaus and Tuolumne glacier, and that the smaller gap between the Merced and Mariposa groves occurs in the channel of the smaller Merced glacier. The wider the ancient glacier, the wider the gap in the sequoia belt, while the groves and forests attain their greatest development in the Kaweah and Tule River basins, just where, owing to topographical conditions, the region was first cleared and warmed, while protected from the main ice-rivers that flowed past to right and left down the King's and Kern valleys. In general, where the ground on the belt was first cleared of ice, there the sequoia now is, and where at the same elevation and time the ancient glaciers lingered, there the sequoia is not. What the other conditions may have been which enabled the sequoia to establish itself upon these oldest and warmest parts of the main soil-belt I cannot say. I might venture to state, however, that since the sequoia forests present a more and more ancient and long-established aspect to the southward, the species was probably distributed from the south toward the close of the glacial period, before the arrival of other trees. About this branch of the question, however, there is at present much fog, but the general relationship we have pointed out between the distribution of the Big Tree and the ancient glacial system is clear. And when we bear in mind that all the existing forests of the Sierra are growing on comparatively fresh moraine soil, and that the range itself has been recently sculptured and brought to light from beneath the ice-mantle of the glacial winter, then many lawless mysteries vanish, and harmonies take their places.

But notwithstanding all the observed phenomena bearing on the post-glacial history of this colossal tree point to the conclusion that it never was more widely distributed on the Sierra since the close of the glacial epoch; that its present forests are scarcely past prime, if, indeed, they have reached prime; that the post-glacial day of the species is probably not half done; yet, when from a wider outlook the vast antiquity of the genus is considered, and its ancient richness in species and individuals, comparing our Sierra giant and *Sequoia sempervirens* of the coast, the only other living species, with the many fossil species already discovered, and described by Heer and Lesquereux, some of which flourished over large areas around the Arctic Circle, and in Europe and our own territories, during Tertiary and Cretaceous times, — then, indeed, it becomes plain that our two surviving species, restricted to narrow belts within the limits of California, are mere remnants of the genus both as to species and individuals, and that they probably are verging to extinction. But the verge of a period beginning in Cretaceous times may have a breadth of tens of thousands of years, not to mention the possible existence of conditions calculated to multiply and reëxtend both species and individuals. No unfavorable change of climate, so far as I can see, no disease, but only fire and the axe and the ravages of flocks and herds threaten the existence of these noblest of God's trees. In Nature's keeping they are safe, but through man's agency destruction is making rapid progress, while in the work of protection only a beginning has been made. The Mariposa Grove belongs to and is guarded by the State; the

General Grant and Sequoia National Parks, established ten years ago, are efficiently guarded by a troop of cavalry under the direction of the Secretary of the Interior; so also are the small Tuolumne and Merced groves, which are included in the Yosemite National Park, while a few scattered patches and fringes, scarce at all protected, though belonging to the national government, are in the Sierra Forest Reservation.

Perhaps more than half of all the Big Trees have been sold, and are now in the hands of speculators and mill men. Even the beautiful little Calaveras Grove of ninety trees, so historically interesting from its being the first discovered, is now owned, together with the much larger South, or Stanislaus, Grove, by a lumber company.

Far the largest and most important section of protected Big Trees is in the grand Sequoia National Park, now easily accessible by stage from Visalia. It contains seven townships and extends across the whole breadth of the magnificent Kaweah basin. But large as it is, it should be made much larger. Its natural eastern boundary is the high Sierra, and the northern and southern boundaries, the King's and Kern rivers, thus including the sublime scenery on the headwaters of these rivers and perhaps nine tenths of all the Big Trees in existence. Private claims cut and blotch both of the sequoia parks as well as all the best of the forests, every one of which the government should gradually extinguish by purchase, as it readily may, for none of these holdings are of much value to their owners. Thus as far as possible the grand blunder of selling would be corrected. The value of these forests in storing and dispensing the bounty of the

mountain clouds is infinitely greater than lumber or sheep. To the dwellers of the plain, dependent on irrigation, the Big Tree, leaving all its higher uses out of the count, is a tree of life, a never-failing spring, sending living water to the lowlands all through the hot, rainless summer. For every grove cut down a stream is dried up. Therefore, all California is crying, "Save the trees of the fountains," nor, judging by the signs of the times, is it likely that the cry will cease until the salvation of all that is left of *Sequoia gigantea* is sure.

BRADFORD TORREY

SCRAPING ACQUAINTANCE

As I was crossing Boston Common, some years ago, my attention was caught by the unusual behavior of a robin, who was standing on the lawn, absolutely motionless, and every few seconds making a faint hissing noise. So much engaged was he that, even when a dog ran near him, he only started slightly, and on the instant resumed his statue-like attitude. Wondering what this could mean, and not knowing how else to satisfy my curiosity, I bethought myself of a man whose letters about birds I had now and then noticed in the daily press. So, looking up his name in the City Directory, and finding that he lived at such a number, Beacon Street, I wrote him a note of inquiry. He must have been amused as he read it; for I remember giving him the title of "Esquire," and speaking of his communications to the newspapers as the ground of my application to him. "Such is fame!" he likely enough said to himself. "Here is a man with eyes in his head, a man, moreover, who has probably been at school in his time, — for most of his words are spelled correctly, — and yet he knows my name only as he has seen it signed once in a while to a few lines in a newspaper." Thoughts like these, however, did not prevent his replying to the note (my "valued favor") with all politeness, although he confessed himself unable to answer my question; and by the time I had occasion to trouble him again I had learned that

he was to be addressed as Doctor, and, furthermore, was an ornithologist of world-wide reputation, being, in fact, one of the three joint-authors of the most important work so far issued on the birds of North America.

Certainly I was and am grateful to him (he is now dead) for his generous treatment of my ignorance; but even warmer is my feeling toward that city thrush, who, all unconscious of what he was doing, started me that day on a line of study which has been ever since a continual delight. Most gladly would I do him any kindness in my power; but I have little doubt that, long ere this, he, too, has gone the way of all the earth. As to what he was thinking about on that memorable May morning, I am as much in the dark as ever. But there is no law against a bird's behaving mysteriously, I suppose. Most of us, I am sure, often do things which are inexplicable to ourselves, and once in a very great while, perhaps, it would puzzle even our next-door neighbors to render a complete account of our motives.

Whatever the robin meant, however, and no doubt there was some good reason for his conduct, he had given my curiosity the needed jog. Now, at last, I would do what I had often dreamed of doing, — learn something about the birds of my own region, and be able to recognize at least the more common ones when I saw them.

The interest of the study proved to be the greater for my ignorance, which, to speak within bounds, was nothing short of wonderful; perhaps I might appropriately use a more fashionable word, and call it phenomenal. All my life long I had had a kind of passion for being

out-of-doors ; and, to tell the truth, I had been so often seen wandering by myself in out-of-the-way wood-paths, or sitting idly about on stone walls in lonesome pastures, that some of my Philistine townsmen had most likely come to look upon me as no better than a vagabond. Yet I was not a vagabond, for all that. I liked work, perhaps, as well as the generality of people. But I was unfortunate in this respect : while I enjoyed indoor work, I hated to be in the house ; and, on the other hand, while I enjoyed being out-of-doors, I hated all manner of outdoor employment. I was not lazy, but I possessed — well, let us call it the true aboriginal temperament ; though I fear that this distinction will be found too subtle, even for the well-educated, unless, along with their education, they have a certain sympathetic bias, which, after all, is the main thing to be depended on in such nice psychological discriminations.

With all my rovings in wood and field, however, I knew nothing of any open-air study. Study was a thing of books. At school we were never taught to look elsewhere for knowledge. Reading and spelling, geography and grammar, arithmetic and algebra, geometry and trigonometry, — these were studied, of course, as also were Latin and Greek. But none of our lessons took us out of the school-room, unless it was astronomy, the study of which I had nearly forgotten ; and that we pursued in the night-time, when birds and plants were as though they were not. I cannot recollect that any one of my teachers ever called my attention to a natural object. It seems incredible, but, so far as my memory serves, I was never in the habit of observing the return of the birds

in the spring or their departure in the autumn; except, to be sure, that the semi-annual flight of the ducks and geese was always a pleasant excitement, more especially because there were several lakes (invariably spoken of as ponds) in our vicinity, on the borders of which the village "gunners" built pine-branch booths in the season.

But now, as I have said, my ignorance was converted all at once into a kind of blessing; for no sooner had I begun to read bird books, and consult a cabinet of mounted specimens, than every turn out-of-doors became full of all manner of delightful surprises. Could it be that what I now beheld with so much wonder was only the same as had been going on year after year in these my own familiar lanes and woods? Truly the human eye is nothing more than a window, of no use unless the man looks out of it.

Some of the experiences of that period seem ludicrous enough in the retrospect. Only two or three days after my eyes were first opened I was out with a friend in search of wild-flowers (I was piloting him to a favorite station for *Viola pubescens*), when I saw a most elegant little creature, mainly black and white, but with brilliant orange markings. He was darting hither and thither among the branches of some low trees, while I stared at him in amazement, calling on my comrade, who was as ignorant as myself, but less excited, to behold the prodigy. Half trembling lest the bird should prove to be some straggler from the tropics, the like of which would not be found in the cabinet before mentioned, I went thither that very evening. Alas, my silly fears! there stood the little beauty's exact counterpart,

labeled *Setophaga ruticilla*, the American redstart, — a bird which the manual assured me was very common in my neighborhood.

But it was not my eyes only that were opened, my ears also were touched. It was as if all the birds had heretofore been silent, and now, under some sudden impulse, had broken out in universal concert. What a glorious chorus it was; and every voice a stranger! For a week or more I was puzzled by a song which I heard without fail whenever I went into the woods, but the author of which I could never set eyes on, — a song so exceptionally loud and shrill, and marked by such a vehement crescendo, that, even to my new-found ears, it stood out from the general medley a thing by itself. Many times I struck into the woods in the direction whence it came, but without getting so much as a flying glimpse of the musician. Very mysterious, surely! Finally, by accident I believe, I caught the fellow in the very act of singing, as he stood on a dead pine-limb; and a few minutes later he was on the ground, walking about (not hopping) with the primmest possible gait, — a small olive-brown bird, with an orange crown and a speckled breast. Then I knew him for the golden-crowned thrush; but it was not for some time after this that I heard his famous evening song, and it was longer still before I found his curious roofed nest.

“Happy those early days,” those days of childish innocence, — though I was a man grown, — when every bird seemed newly created, and even the redstart and the wood wagtail were like rarities from the ends of the earth. Verily, my case was like unto Adam’s,

when every fowl of the air was brought before him for a name.

One evening, on my way back to the city after an afternoon ramble, I stopped just at dusk in a grove of hemlocks, and soon out of the tree-top overhead came a song, — a brief strain of about six notes, in a musical but rather rough voice, and in exquisite accord with the quiet solemnity of the hour. Again and again the sounds fell on my ear, and as often I endeavored to obtain a view of the singer; but he was in the thick of the upper branches, and I looked for him in vain. How delicious the music was! a perfect lullaby, drowsy and restful; like the benediction of the wood on the spirit of a tired city-dweller. I blessed the unknown songster in return; and even now I have a feeling that the peculiar enjoyment which the song of the black-throated green warbler never fails to afford me may perhaps be due in some measure to its association with that twilight hour.

To this same hemlock grove I was in the habit, in those days, of going now and then to listen to the evening hymn of the veery, or Wilson thrush. Here, if nowhere else, might be heard music fit to be called sacred. Nor did it seem a disadvantage, but rather the contrary, when, as sometimes happened, I was compelled to take my seat in the edge of the wood, and wait quietly, in the gathering darkness, for vespers to begin. The veery's mood is not so lofty as the hermit's, nor is his music to be compared for brilliancy and fullness with that of the wood thrush; but, more than any other bird-song known to me, the veery's has, if I may say so, the accent of sanctity. Nothing is here of self-consciousness; nothing

of earthly pride or passion. If we chance to overhear it and laud the singer, that is our affair. Simple-hearted worshiper that he is, he has never dreamed of winning praise for himself by the excellent manner in which he praises his Creator, — an absence of thrift, which is very becoming in thrushes, though, I suppose, it is hardly to be looked for in human choirs.

And yet, for all the unstudied ease and simplicity of the veery's strain, he is a great master of *technique*. In his own artless way he does what I have never heard any other bird attempt: he gives to his melody all the force of harmony. How this unique and curious effect, this vocal double-stopping, as a violinist might term it, is produced, is not certainly known; but it would seem that it must be by an *arpeggio*, struck with such consummate quickness and precision that the ear is unable to follow it, and is conscious of nothing but the resultant chord. At any rate, the thing itself is indisputable, and has often been commented on.

Moreover, this is only half the veery's technical proficiency. Once in a while, at least, he will favor you with a delightful feat of ventriloquism; beginning to sing in single voice, as usual, and anon, without any noticeable increase in the loudness of the tones, diffusing the music throughout the wood, as if there were a bird in every tree, all singing together in the strictest time. I am not sure that all members of the species possess this power, and I have never seen the performance alluded to in print; but I have heard it when the illusion was complete, and the effect most beautiful.

Music so devout and unostentatious as the veery's

does not appeal to the hurried or the preoccupied. If you would enjoy it you must bring an ear to hear. I have sometimes pleased myself with imagining a resemblance between it and the poetry of George Herbert, — both uncared for by the world, but both, on that very account, prized all the more dearly by the few in every generation whose spirits are in tune with theirs.

This bird is one of a group of small thrushes called the *Hylocichlae*, of which group we have five representatives in the Atlantic States : the wood thrush ; the Wilson, or tawny thrush ; the hermit; the olive-backed, or Swainson ; and the gray-cheeked, or Alice's thrush. To the unpracticed eye the five all look alike. All of them, too, have the same glorious voice, so that the young student is pretty sure to find it a matter of some difficulty to tell them apart. Yet there are differences of coloration which may be trusted as constant, and to which, after a while, the eye becomes habituated ; and, at the same time, each species has a song and call-notes peculiar to itself. One cannot help wishing, indeed, that he might hear the five singing by turns in the same wood. Then he could fix the distinguishing peculiarities of the different songs in his mind so as never to confuse them again. But this is more than can be hoped for ; the listener must be content with hearing two, or at the most three, of the species singing together, and trust his memory to make the necessary comparison.

The song of the wood thrush is perhaps the most easily set apart from the rest, because of its greater compass of voice and bravery of execution. The Wilson's

song, as you hear it by itself, seems so perfectly characteristic that you fancy you can never mistake any other for it; and yet, if you are in northern New England only a week afterwards, you may possibly hear a Swainson (especially if he happens to be one of the best singers of his species, and, more especially still, if he happens to be at just the right distance away), who you will say, at first thought, is surely a Wilson. The difficulty of distinguishing the voices is naturally greatest in the spring, when they have not been heard for eight or nine months. Here, as elsewhere, the student must be willing to learn the same lesson over and over, letting patience have her perfect work. That the five songs are really distinguishable is well illustrated by the fact (which I have before mentioned) that the presence of the Alice thrush in New England during the breeding-season was announced as probable by myself, simply on the strength of a song which I had heard in the White Mountains, and which, as I believed, must be his, notwithstanding I was entirely unacquainted with it, and though all our books affirmed that the Alice thrush was not a summer resident of any part of the United States.

It is worth remarking, also, in this connection, that the *Hylocichlæ* differ more decidedly in their notes of alarm than in their songs. The wood thrush's call is extremely sharp and brusque, and is usually fired off in a little volley; that of the Wilson is a sort of whine, or snarl, in distressing contrast with his song; the hermit's is a quick, *sotto voce*, sometimes almost inaudible *chuck*; the Swainson's is a mellow whistle; while that of the Alice is something between the Swainson's and the Wil-

son's, — not so gentle and refined as the former, nor so outrageously vulgar as the latter.

In what is here said about discriminating species it must be understood that I am not speaking of such identification as will answer a strictly scientific purpose. For that the bird must be shot. To the maiden

“ whose bright blue eyes
Are tender over drowning flies,”

this decree will no doubt sound cruel. Men who pass laws of that sort may call themselves ornithologists, if they will; for her part she calls them butchers. We might turn on our fair accuser, it is true, with some inquiry about the two or three bird-skins which adorn her bonnet. But that would be only giving one more proof of our heartlessness; and, besides, unless a man is downright angry he can scarcely feel that he has really cleared himself when he has done nothing more than to point the finger and say, You're another. However, I am not set for the defense of ornithologists. They are abundantly able to take care of themselves without the help of any outsider. I only declare that, even to my unprofessional eye, this rule of theirs seems wise and necessary. They know, if their critics do not, how easy it is to be deceived; how many times things have been seen and minutely described, which, as was afterwards established, could not by any possibility have been visible. Moreover, regret it as we may, it is clear that in this world nobody can escape giving and taking more or less pain. We of the sterner sex are accustomed to think that even our blue-eyed censors are not entirely innocent

in this regard ; albeit, for myself, I am bound to believe that generally they are not to blame for the tortures they inflict upon us.

Granting the righteousness of the scientist's caution, however, we may still find a less rigorous code sufficient for our own non-scientific, though I hope not unscientific, purpose. For it is certain that no great enjoyment of bird study is possible for some of us, if we are never to be allowed to call our gentle friends by name until in every case we have gone through the formality of a *post mortem* examination. Practically, and for every-day ends, we may know a robin, or a redstart, or even a hermit thrush, when we see him, without first turning the bird into a specimen.

Probably there are none of our birds which afford more surprise and pleasure to a novice than the family of warblers. A well-known ornithologist has related how one day he wandered into the forest in an idle mood, and accidentally catching a gleam of bright color overhead, raised his gun and brought the bird to his feet ; and how excited and charmed he was with the wondrous beauty of his little trophy. Were there other birds in the woods as lovely as this ? He would see for himself. And that was the beginning of what bids fair to prove a life-long enthusiasm.

Thirty-eight warblers are credited to New England ; but it would be safe to say that not more than three of them are known to the average New-Englander. How should he know them, indeed ? They do not come about the flower-garden like the hummingbird, nor about the lawn like the robin ; neither can they be hunted with a

dog like the grouse and the woodcock. Hence, for all their gorgeous apparel, they are mainly left to students and collectors. Of our common species the most beautiful are, perhaps, the blue yellow-back, the blue golden-wing, the Blackburnian, the black and yellow, the Canada flycatcher, and the redstart; with the yellow-rump, the black-throated green, the prairie warbler, the summer yellowbird, and the Maryland yellow-throat coming not far behind. But all of them are beautiful, and they possess, besides, the charm of great diversity of plumage and habits; while some of them have the further merit, by no means inconsiderable, of being rare.

It was a bright day for me when the blue golden-winged warbler settled in my neighborhood. On my morning walk I detected a new song, and, following it up, found a new bird,—a result which is far from being a thing of course. The spring migration was at its height, and at first I expected to have the pleasure of my new friend's society for only a day or two; so I made the most of it. But it turned out that he and his companion had come to spend the summer, and before very long I discovered their nest. This was still unfinished when I came upon it; but I knew pretty well whose it was, having several times noticed the birds about the spot, and a few days afterwards the female bravely sat still, while I bent over her, admiring her courage and her handsome dress. I paid my respects to the little mother almost daily, but jealously guarded her secret, sharing it only with a kind-hearted woman, whom I took with me on one of my visits. But, alas! one day I called, only to find the nest empty. Whether

the villain who pillaged it traveled on two legs, or on four, I never knew. Possibly he dropped out of the air. But I wished him no good, whoever he was. Next year the birds appeared again, and more than one pair of them; but no nest could I find, though I often looked for it, and, as children say in their games, was sometimes very warm.

Is there any lover of birds in whose mind certain birds and certain places are not indissolubly joined? Most of us, I am sure, could go over the list and name the exact spots where we first saw this one, where we first heard that one sing, and where we found our first nest of the other. There is a piece of swampy woodland in Jefferson, New Hampshire, midway between the hotels and the railway station, which, for me, will always be associated with the song of the winter wren. I had been making an attempt to explore the wood, with a view to its botanical treasures; but the mosquitoes had rallied with such spirit that I was glad to beat a retreat to the road. Just then an unseen bird broke out into a song, and by the time he had finished I was saying to myself, A winter wren! Now, if I could only see him in the act, and so be sure of the correctness of my guess! I worked to that end as cautiously as possible, but all to no purpose; and finally I started abruptly toward the spot whence the sound had come, expecting to see the bird fly. But apparently there was no bird there, and I stood still, in a little perplexity. Then, all at once, the wren appeared, hopping about among the dead branches, within a few yards of my feet, and peering at the intruder with evident curiosity; and the next moment he

was joined by a hermit thrush, equally inquisitive. Both were silent as dead men, but plainly had no doubt whatever that they were in their own domain, and that it belonged to the other party to move away. I presumed that the thrush, at least, had a nest not far off, but after a little search (the mosquitoes were still active) I concluded not to intrude further on his domestic privacy. I had heard the wren's famous song, and it had not been overpraised. But then came the inevitable second thought: had I really heard it? True, the music possessed the wren characteristics and a winter wren was in the brush; but what proof had I that the bird and the song belonged together? No; I must see him in the act of singing. But this, I found, was more easily said than done. In Jefferson, in Gorham, in the Franconia Notch, in short, wherever I went, there was no difficulty about hearing the music, and little about seeing the wren; but it was provoking that eye and ear could never be brought to bear witness to the same bird. However, this difficulty was not insuperable, and after it was once overcome I was in the habit of witnessing the whole performance almost as often as I wished.

Of similar interest to me is a turn in an old Massachusetts road, over which, boy and man, I have traveled hundreds of times; one of those delightful back-roads, half road and half lane, where the grass grows between the horse-track and the wheel-track, while bushes usurp what ought to be the sidewalk. Here, one morning in the time when every day was disclosing two or three new species for my delight, I stopped to listen to some bird of quite unsuspected identity, who was calling and sing-

ing and scolding in the Indian brier thicket, making, in truth, a prodigious racket. I twisted and turned, and was not a little astonished when at last I detected the author of all this outcry. From a study of the manual I set him down as probably the white-eyed vireo, — a conjecture which further investigation confirmed. This vireo is the very prince of stump-speakers, — fluent, loud, and sarcastic, — and is well called the politician, though it is a disappointment to learn that the title was given him, not for his eloquence, but on account of his habit of putting pieces of newspaper into his nest. While I stood peering into the thicket, a man whom I knew came along the road, and caught me thus disreputably employed. Without doubt he thought me a lazy good-for-nothing; or possibly (being more charitable) he said to himself, "Poor fellow! he's losing his mind."

Take a gun on your shoulder, and go wandering about the woods all day long, and you will be looked upon with respect, no matter though you kill nothing bigger than a chipmunk; or stand by the hour at the end of a fishing-pole, catching nothing but mosquito-bites, and your neighbors will think no ill of you. But to be seen staring at a bird for five minutes together, or picking roadside weeds! — well, it is fortunate there are asylums for the crazy. Not unlikely the malady will grow upon him; and who knows how soon he may become dangerous? Something must be wrong about that to which we are unaccustomed. Blowing out the brains of rabbits and squirrels is an innocent and delightful pastime, as everybody knows; and the delectable excitement of pulling half-grown fishes out of the pond to perish miserably on

the bank, that, too, is a recreation easily enough appreciated. But what shall be said of enjoying birds without killing them, or of taking pleasure in plants, which, so far as we know, cannot suffer even if we do kill them?

Of my many pleasant associations of birds with places, one of the pleasantest is connected with the red-headed woodpecker. This showy bird has for a good many years been very rare in Massachusetts; and therefore, when, during the freshness of my ornithological researches, I went to Washington for a month's visit, it was one of the things which I had especially in mind to make his acquaintance. But I looked for him without success, till, at the end of a fortnight, I made a pilgrimage to Mount Vernon. Here, after visiting the grave, and going over the house, as every visitor does, I sauntered about the grounds, thinking of the great man who used to do the same so many years before, but all the while keeping my eyes open for the present feathered inhabitants of the sacred spot. Soon a bird dashed by me, and struck against the trunk of an adjacent tree, and glancing up quickly, I beheld my much-sought red-headed woodpecker. How appropriately patriotic he looked, at the home of Washington, wearing the national colors, — red, white, and blue! After this he became abundant about the capital, so that I saw him often, and took much pleasure in his frolicsome ways; and, some years later, he suddenly appeared in force in the vicinity of Boston, where he remained through the winter months. To my thought, none the less, he will always suggest Mount Vernon. Indeed, although he is certainly rather jovial, and even giddy, he is to me the bird

of Washington much more truly than is the solemn, stupid-seeming eagle who commonly bears that name.

To go away from home, even if the journey be no longer than from Massachusetts to the District of Columbia, is sure to prove an event of no small interest to a young naturalist; and this visit of mine to the national capital was no exception. On the afternoon of my arrival, walking up Seventh Street, I heard a series of loud, clear, monotonous whistles, which I had then no leisure to investigate, but the author of which I promised myself the satisfaction of meeting at another time. In fact, I think it was at least a fortnight before I learned that these whistles came from the tufted titmouse. I had been seeing him almost daily, but till then he had never chanced to use that particular note while under my eye.

There was a certain tract of country, woodland and pasture, over which I roamed a good many times, and which is still clearly mapped out in my memory. Here I found my first Carolina or mocking wren, who ran in at one side of a woodpile and came out at the other as I drew near, and who, a day or two afterwards, sang so loudly from an oak tree that I ransacked it with my eye in search of some large bird, and was confounded when finally I discovered who the musician really was. Here, every day, were to be heard the glorious song of the cardinal grosbeak, the insect-like effort of the blue-gray gnatcatcher, and the rigmarole of the yellow-breasted chat. On a wooded hillside, where grew a profusion of trailing arbutus, pink azalea, and bird-foot violets, the rowdyish great crested flycatchers were screaming in the tree-tops. In this same grove I twice saw the rare red-

bellied woodpecker, who, on both occasions, after rapping smartly with his beak, turned his head and laid his ear against the trunk, evidently listening to see whether his alarm had set any grub a-stirring. Near by, in an undergrowth, I fell in with a few worm-eating warblers. They seemed of a peculiarly unsuspicious turn of mind, and certainly wore the quaintest of head-dresses. I must mention also a scarlet tanager, who, all afire as he was, one day alighted in a bush of flowering dogwood, which was completely covered with its large white blossoms. Probably he had no idea how well his perch became him.

Perhaps I ought to be ashamed to confess it, but, though I went several times into the galleries of our honorable Senate and House of Representatives, and heard speeches by some celebrated men, including at least half a dozen candidates for the presidency, yet, after all, the congressmen in feathers interested me most. I thought, indeed, that the chat might well enough have been elected to the lower house. His volubility and wagish manners would have made him quite at home in that assembly, while his orange-colored waistcoat would have given him an agreeable conspicuity. But, to be sure, he would have needed to learn the use of tobacco.

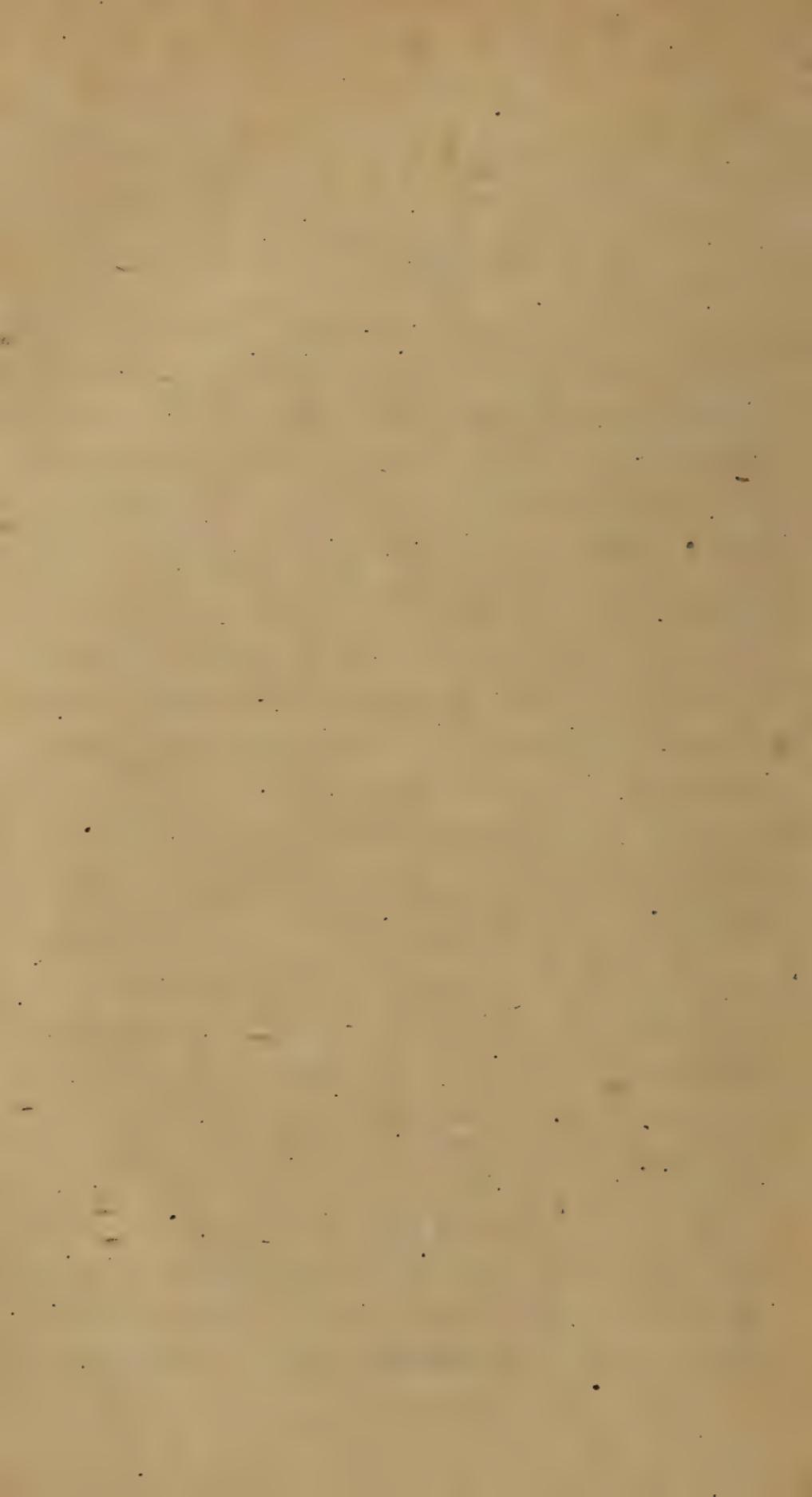
Well, all this was only a few years ago; but the men whose eloquence then drew the crowd to the Capitol are, many of them, heard there no longer. Some are dead; some have retired to private life. But the birds never die. Every spring they come trooping back for their all-summer session. The turkey-buzzard still floats majestically over the city; the chat still practices his lofty

tumbling in the suburban pastures, snarling and scolding at all comers; the flowing Potomac still yields "a blameless sport" to the fish crow and the kingfisher; the orchard oriole continues to whistle in front of the Agricultural Department, and the crow blackbird to parade back and forth over the Smithsonian lawns. Presidents and senators may come and go, be praised and vilified, and then in turn forgotten; but the birds are subject to no such mutations. It is a foolish thought, but sometimes their happy carelessness seems the better part.

AN OLD ROAD

I FALL in with persons, now and then, who profess to care nothing for a path when walking in the woods. They do not choose to travel in other people's footsteps, — nay, nor even in their own, — but count it their mission to lay out a new road every time they go afield. They are welcome to their freak. My own genius for adventure is less highly developed ; and, to be frank, I have never learned to look upon affectation and whim as synonymous with originality. In my eyes, it is nothing against a hill that other men have climbed it before me ; and if their feet have worn a trail, so much the better. I not only reach the summit more easily, but have company on the way, — company none the less to my mind, perhaps, for being silent and invisible. It is well enough to strike into the trackless forest once in a while ; to wander you know not whither, and come out you know not where ; to lie down in a strange place, and for an hour imagine yourself the explorer of a new continent : but if the mind be awake (as, alas, too often it is not), you may walk where you will, in never so well known a corner, and you will see new things, and think new thoughts, and return to your house a new man, which, I venture to believe, is after all the main consideration. Indeed, if your stirring abroad is to be more than mere muscular exercise, you will find a positive advantage in making use of some well-worn and familiar path.

An Old Road





The feet will follow it mechanically, and so the mind — that is, the walker himself — will be left undistracted. That, to my thinking, is the real tour of discovery wherein one keeps to the beaten road, looks at the customary sights, but brings home a new idea.

There are inward moods, as well as outward conditions, in which an old, half-disused, bush-bordered road becomes the saunterer's paradise. I have several such in my eye at this moment, but especially one, in which my feet, years ago, grew to feel at home. It is an almost ideal loitering place, or would be, if only it were somewhat longer. How many hundreds of times have I traveled it, spring and summer, autumn and winter! As I go over it now, the days of my youth come back to me, clothed all of them in that soft, benignant light which nothing but distance can bestow, whether upon hills or days. This gracious effect is heightened, no doubt, by the fact that for a good while past my visits to the place have been only occasional. Memory and imagination are true yoke-fellows, and between them are always preparing some new pleasure for us, as often as we allow them opportunity. The other day, for instance, as I came to the top of the hill just beyond the river, I turned suddenly to the right, looking for an old pear tree. I had not thought of it for years, and the more I have since tried to recall its appearance and exact whereabouts, the less confident have I grown that it ever had any material existence; but somehow, just at that moment my mouth seemed to recollect it; and in general I have come to put faith in such involuntary and, if I may say so, sensible joggings of the memory. I wonder

whether the tree ever was there — or anywhere. At all events, the thought of it gave me for the moment a pleasure more real than any taste in the mouth, were it never so sweet. Thank fortune, imaginative delights are as far as possible from being imaginary.

The river just mentioned runs under the road, and, as will readily be inferred, is one of its foremost attractions. I speak of it as a “river” with some misgivings. It is a rather large brook, or a very small river; but a man who has never been able to leap across it has perhaps no right to deny it the more honorable appellation. Its source is a spacious and beautiful sheet of water, which heretofore has been known as a “pond,” but which I should be glad to believe would hereafter be put upon the maps as Lake Wessagusset. This brook or river, call it whichever you please, goes meandering through the township in a northeasterly direction, turning the wheels of half a dozen mills, more or less, on its way; a sluggish stream, too lazy to work, you would think; passing much of its time in flat, grassy meadows, where it idles along as if it realized that the end of its course was near, and felt in no haste to lose itself in the salt sea. Out of this stream I pulled goodly numbers of perch, pickerel, shiners, flatfish, and hornpouts, while I was still careless-hearted enough (“Heaven lies about us in our infancy”) to enjoy this very amiable and semi-religious form of “sport;” and as the river intersects at least seven roads that came within my boyish beat, I must have crossed it thousands of times; in addition to which I have spent days in paddling and bathing in it. Altogether, it is one of my most familiar friends; and —

what one cannot say of all familiar friends — I do not remember that it ever served me the slightest ill-turn. It passes under the road of which I am now discoursing, in a double channel (the bridge being supported midway by a stone wall), and then broadens out into an artificial shallow, through which travelers may drive if they will, to let their horses drink out of the stream. First and last, I have improved many a shining hour on this bridge leaning industriously over the railing. I can see the rocky bed at this moment, — yes, and the very shade and position of some of the stones, as I saw them thirty years ago ; especially of one, on which we used to balance ourselves to dip up the water or to peer under the bridge. In those days, if we essayed to be uncommonly adventurous, we waded through this low and somewhat dark passage ; a gruesome proceeding, as we were compelled to stoop a little, short as we were, to save our heads, while the road, to our imagination, seemed in momentary danger of caving in upon us. Courage, like all other human virtues, is but a relative attribute. Possibly the heroic deeds upon which in our grown-up estate we plume ourselves are not greatly more meritorious or wonderful than were some of the childish ventures at the recollection of which we now condescend to feel amused.

On the surface of the brook flourished two kinds of insects, whose manner of life we never tired of watching. One sort had long, wide-spreading legs, and by us were known as “skaters,” from their movements (to this day, I blush to confess, I have no other name for them) ; the others were flat, shining, orbicular or oblong, lead-col-

ored bugs, — “lucky-bugs” I have heard them called, — and lay flat upon the water, as if quite without limbs; but they darted over the brook, and even against the current, with noticeable activity, and doubtless were well supplied with paddles. Once in a while we saw a fish here, but only on rare occasions. The great unfailing attraction of the place, then as now, was the flowing water, forever spending and never spent. The insects lived upon it; apparently they had no power to leave it for an instant; but they were not carried away by it. Happy creatures! We, alas, sporting upon the river of time, can neither dive below the surface nor mount into the ether, and, unlike the insects (“lucky bugs,” indeed!), we have no option but to move with the tide. We have less liberty than the green flags, even, which grow in scattered tufts in the bed of the brook; whose leaves point forever down-stream, like so many index fingers, as if they said, “Yes, yes, that is the way to the sea; that way we all must go;” while for themselves, nevertheless, they manage to hold on by their roots, victorious even while professing to yield.

To my mind the river is alive. Reason about it as I will, I never can make it otherwise. I could sooner believe in water nymphs than in many existences which are commonly treated as much more certain matters of fact. I *could* believe in them, I say; but in reality I do not. My communings are not with any haunter of the river, but with the living soul of the river itself. It lags under the vine-covered alders, hastens through the bridge, then slips carelessly down a little descent, where it breaks into singing, then into a mill-pond and out

again, and so on and on, through one experience after another; and all the time it is not dead water, but a river, a thing of life and motion. After all, it is not for me to say what is alive and what dead. As yet, indeed, I do not so much as know what life is. In certain moods, in what I fondly call my better moments, I feel measurably sure of being alive myself; but even on that point, for aught I can tell, the brook may entertain some private doubts.

Just beyond the bridge is an ancient apple orchard. This was already falling into decay when I was a boy, and the many years that have elapsed since then have nearly completed its demolition; although I dare say the present generation of schoolboys still find it worth while to clamber over the wall, as they journey back and forth. Probably it will be no surprise to the owner of the place if I tell him that before I was twelve years old I knew the taste of all his apples. In fact, the orchard was so sequestered, so remote from any house, — especially from its proprietor's, — that it hardly seemed a sin to rob it. It was not so much an orchard as a bit of woodland; and besides, we never shook the trees, but only helped ourselves to windfalls; and it must be a severe moralist who calls *that* stealing. Why should the fruit drop off, if not to be picked up? In my time, at all events, such appropriations were never accounted robbery, though the providential absence of the owner was unquestionably a thing to be thankful for. He would never begrudge us the apples, of course, for he was rich and presumably generous; but it was quite as well for him to be somewhere else while we were gathering up

these favors which the winds of heaven had shaken down for our benefit. There is something of the special pleader in most of us, it is to be feared, whether young or old. If we are put to it, we can draw a very fine distinction (in our own favor), no matter how obtuse we may seem on ordinary occasions.

Remembering how voracious and undiscriminating my juvenile appetite was, I cannot help wondering that I am still alive, — a feeling which I doubt not is shared by many a man who, like myself, had a country bringing-up. We must have been born with something more than a spark of life, else it would certainly have been smothered long ago by the fuel so recklessly heaped upon it. But we lived out-of-doors, took abundant exercise, were not studious overmuch (as all boys and girls are charged with being nowadays), and had little to worry about, which may go far to explain the mystery.

It provokes a smile to reckon up the many places along this old road that are indissolubly connected in my mind with the question of something to eat. At the foot of the orchard just now spoken of, for example, is a dilapidated stone wall, between it and the river. Over this, as well as over the bushes beside it, straggled a small wild grape-vine, bearing every year a scanty crop of white grapes. These, to our unsophisticated palates, were delicious, if only they got ripe. That was the rub; and as a rule we gathered our share of them (which was all there were) while they were yet several stages short of that desirable consummation, not deeming it prudent to leave them longer, lest some hungrier soul should get the start of us. Graping, as we called it, was one of our

regular autumn industries, and there were few vines within the circle of our perambulations which did not feel our fingers tugging at them at least once a year. Some of them hung well over the river; others took refuge in the tops of trees; but by hook or by crook, we usually got the better of such perversities. No doubt the fruit was all bad enough; but some of it was sweeter (or less sour) than other. Perhaps the best vine was one that covered a certain superannuated apple tree, half a mile west of our river-side orchard, before mentioned. Here I might have been seen by the hour, eagerly yet cautiously venturing out upon the decayed and doubtful limbs, in quest of this or that peculiarly tempting bunch. These grapes were purple (how well some things are remembered!), and were sweeter then than Isabellas or Catawbas are now. Such is the degeneracy of vines in these modern days!

Altogether more important than the grapes were the huckleberries, for which, also, we four times out of five took this same famous by-road. Speaking roughly, I may say that we depended upon seven pastures for our supplies, and were accustomed to visit them in something like regular order. It is kindly provided that huckleberry bushes have an exceptionally strong tendency to vary. We possessed no theories upon the subject, and knew nothing of disputed questions about species and varieties; but we were not without a good degree of practical information. Here was a bunch of bushes, for instance, covered with black, shiny, pear-shaped berries, very numerous, but very small. They would do moderately well in default of better. Another patch, perhaps

but a few rods removed, bore large globular berries, less glossy than the others, but still black. These, as we expressed it, "filled up" much faster than the others, though not nearly so "thick." Blue berries (not blue-berries, but blue huckleberries) were common enough, and we knew one small cluster of plants the fruit of which was white, a variety that I have since found noted by Doctor Gray as very rare. Unhappily, this freak made so little impression upon me as a boy that while I am clear as to the fact, and feel sure of the pasture, I have no distinct recollection of the exact spot where the eccentric bushes grew. I should like to know whether they still persist. Gray's Manual, by the way, makes no mention of the blue varieties, but lays it down succinctly that the fruit of *Gaylussacia resinosa* is black.

The difference we cared most about, however, related not to color, shape, or size, but to the time of ripening. Diversity of habit in this regard was indeed a great piece of good fortune, not to be rightly appreciated without horrible imaginings of how short the season of berry pies and puddings would be if all the berries matured at once. You may be sure we never forgot where the early sorts were to be found, and where the late. What hours upon hours we spent in the broiling sun, picking into some half-pint vessel, and emptying that into a larger receptacle, safely stowed away under some cedar tree or barberry-bush. How proud we were of our heaped-up pails! How carefully we discarded from the top every half-ripe or otherwise imperfect specimen! (So early do well-taught Yankee children develop one qualification for the diaconate.) The sun had certain minor errands

to look after, we might have admitted, even in those midsummer days, but his principal business was to ripen huckleberries. So it seemed then. And now — well, men are but children still, and for them, too, their own little round is the centre of the world.

All these pastures had names, of course, well understood by us children, though I am not sure how generally they would have been recognized by the townspeople. The first in order was River Pasture, the owner of which turned his cattle into it, and every few years mowed the bushes, with the result that the berries, whenever there were any, were uncommonly large and handsome. Not far beyond this (the entrance was through a “pair of bars,” beside a spreading white oak) was Millstone Pasture. This was a large, straggling place, half pasture, half wood, full of nooks and corners, with by-paths running hither and thither, and named after two large bowlders, which lay one on top of the other. We used to clamber upon these to eat our luncheon, thinking within ourselves, meanwhile, that the Indians must have been men of prodigious strength. At that time, though I scarcely know how to own it, glacial action was a thing by us unheard of. We are wiser now, — on that point, at any rate. Two of the other pastures were called respectively after the railroad and a big pine tree (there *was* a big pine tree in W—— once, for I myself have seen the stump), while the remainder took their names from their owners, real or reputed; and as some of these appellations were rather disrespectfully abbreviated, it may be as well to omit setting them down in print.

To all these places we resorted a little later in the season for blackberries, and later still for barberries. In one or two of them we set snares, also, but without materially lessening the quantity of game. The rabbits, especially, always helped themselves to the bait, and left us the noose. At this distance of time I do not begrudge them their good fortune. I hope they are all alive yet, including the youngster that we once caught in our hands and brought home, and then, in a fit of contrition, carried back again to its native heath.

All in all, the berries that we prized most, perhaps, were those that came first, and were at the same time least abundant. Yankee children will understand at once that I mean the checkerberries, or, as we were more accustomed to call them, the boxberries. The very first mild days in March, if the snow happened to be mostly gone, saw us on this same old road bound for one of the places where we thought ourselves most likely to find a few (possibly a pint or two, but more probably a handful or two) of these humble but spicy fruits. Not that the plants were not plentiful enough in all directions, but it was only in certain spots (or rather in very *uncertain* spots, since these were continually shifting) that they were ever in good bearing condition. We came after a while to understand that the best crops were produced for two or three years after the cutting off of the wood in suitable localities. Letting in the sunlight seems to have the effect of starting into sudden fruitfulness this hardy, persistent little plant, although I never could discover that it thrived better for growing permanently in an open, sunny field. Perhaps it

requires an unexpected change of condition, a providential nudge, as it were, to jog it into activity, like some poets. Whatever the explanation, we used now and then in recent clearings (and nowhere else) to find the ground fairly red with berries. Those were red-letter days in our calendar. How handsome such a patch of rose-color was (though we made haste to despoil it), circling an old stump or a bowlder! The berries were pleasant to the eye and good for food; but after all, their principal attractiveness lay in the fact that they came right upon the heels of winter. They were the first-fruits of the new year (ripened the year before, to be sure), and to our thinking were fit to be offered upon any altar, no matter how sacred.

I have called the subject of my loving meditations a by-road. Formerly it was the main thoroughfare between two villages, but shortly after my acquaintance with it began a new and more direct one was laid out. Yet the old road, half deserted as it is, has not altogether escaped the ruthless hand of the improver. Within my time it has been widened throughout, and in one place a new section has been built to cut off a curve. Fortunately, however, the discarded portion still remains, well grown up to grass, and closely encroached upon by willows, alders, sumachs, barberries, dogwoods, smilax, clethra, azalea, button-bush, birches, and what not, yet still passable even for carriages, and more inviting than ever to lazy pedestrians like myself. On this cast-off section is a cosy, grassy nook, shaded by a cluster of red cedars. This was one of our favorite way-stations on summer noons. It gives me a comfortable,

restful feeling to look into it even now, as if my weary limbs had reminiscences of their own connected with the place.

Right at this point stands an ancient russet apple tree, which seems no older and brings forth no smaller apples now than it did when I first knew it. How natural it looks in every knot and branch! Strange, too, that it should be so, since I do not recall its ever contributing the first mouthful to my pleasures as a schoolboy gastronomer. In those times I judged a tree solely by the New Testament standard, very literally interpreted,—“By their fruits ye shall know them.” Now I have other tests, and can value an old acquaintance of this kind for its picturesqueness, though its apples be bitter as wormwood.

I am making too much of the food question, and will therefore say nothing of strawberries, raspberries, thimbleberries, cranberries (which last were delicious, as we took them out of their icy ovens in the spring), pignuts, hazelnuts, acorns, and the rest. Yet I will not pass by a small clump of dangleberry bushes (a September luxury not common in our neighborhood) and a lofty pear tree. The latter, in truth, hardly belongs under this head; for though it bore superabundant crops of pears, not even a child was ever known to eat one. We called them iron pears, perhaps because nothing but the hottest fire could be expected to reduce them to a condition of softness. My mouth is all in a pucker at the mere thought of the rusty-green bullets. It did seem a pity they should be so outrageously hard, so absolutely untoothsome; for the tree, as I say, was a big one and pro-

vokingly prolific, and, moreover, stood squarely upon the roadside. What a godsend we should have found it, had its fruit been a few degrees less stony! Such incongruities and disappointments go far to convince me that the creation is indeed, as some theologians have taught, under a curse.

My appetite for wild fruits has grown dull with age, but meanwhile my affection for the old road has not lessened, but rather increased. In itself the place is nowise remarkable, a common country back road (its very name is Back Street); but all the same I "take pleasure in its stones, and favor the dust thereof." There are none of us so matter-of-fact and unsentimental, I hope, as never to have experienced the force of old associations in gilding the most ordinary objects. For my own part, I protest, I would give more for a single stunted cluster of orange-red berries from a certain small vine of Roxbury wax-work, near the entrance to Millstone Pasture aforesaid, than for a bushel of larger and handsomer specimens from some alien source. This old vine still holds on, I am happy to see, though it appears to have made no growth in twenty years. Long may it be spared! It was within a few rods of it, beside the path that runs into the pasture, that I shot my first bird. Newly armed with a shotgun, and on murder bent, I turned in here; and as luck would have it, there sat the innocent creature in a birch. The temptation was too great. There followed a moment of excitement, a nervous aim, a bang, and a catbird's song was hushed forever. A mean and cruel act, which I confess with shame, and have done my best to atone for by speaking here and there a good word for

this poorly appreciated member of our native choir. I should be glad to believe that the schoolboys of the present day are more tender-hearted than those with whom I mixed; but I am not without my doubts. As Darwin showed, all animals in the embryonic stage tend to reproduce ancestral characteristics; and our Anglo-Saxon ancestors (how easy it seems to believe it!) were barbarians.

This same Millstone Pasture, by the bye, was a place of special resort at Christmas time. Here grew plenty of the trailing plant which we knew simply as "evergreen," but which now, in my superior wisdom, I call *Lycopodium complanatum*. This, indeed, was common in various directions, but the holly was much less easily found, and grew here more freely than anywhere else. The unhappy trees had a hard shift to live, so broken down were they with each recurring December; and the more berries they produced, the worse for them. Their anticipations of Christmas must have been strangely different from those of us toy-loving, candy-eating children. But who thinks of sympathizing with a tree?

As for the wayside flowers, they are, as becomes the place, of the very commonest and most old-fashioned sorts, more welcome to my eye than the choicest of rarities: goldenrods and asters in great variety and profusion, hardhack and meadow-sweet, St. John's-wort and loosestrife, violets and anemones, self-heal and cranesbill, and especially the lovely but little-known purple gerardia. These, with their natural companions and allies, make to me a garden of delights, whereunto my feet, as far as they find opportunity, do continually

resort. What flowers ought a New-Englander to love, if not such as are characteristic of New England?

And yet, proudly and affectionately as I talk of it, Back Street is not what it once was. I have already mentioned the straightening, as also the widening, both of them sorry improvements. Furthermore, there was formerly a huge (as I remember it) and beautifully proportioned hemlock tree, at which I used to gaze admiringly in the first years of my wandering hither. What millions of tiny cones hung from its pendulous branches! The magnificent creation should have been protected by legislative enactment, if necessary; but no, almost as long ago as I can remember, long before I attained to grammar-school dignities, the owner of the land (so he thought himself, no doubt) turned the tree into firewood. And worse yet, the stately pine grove that flourished across the way, with mossy bowlders underneath and a most delightsome density of shade, — this, too, like the patriarchal hemlock, has been cut off in the midst of its usefulness.

“Their very memory is fair and bright,
And my sad thoughts doth cheer!”

Now there is nothing on the whole hillside but a thicket of young hard-wood trees (I would say deciduous, but in New England, alas, all trees are deciduous), through which my dog loves to prowl, but which warns me to keep the road. Such devastations are not to be prevented, I suppose, but at least there is no law against my bewailing them.

Even in its present decadence, however, my road, as

I said to begin with, is a kind of saunterer's paradise. When we come to particulars, indeed, it is nothing to boast of; but waiving particulars, and taking it for all in all, there is no highway upon the planet where I better enjoy an idle hour. There is a boy of perhaps ten years whose companionship is out of all reason dear to me; and nowhere am I surer to find him at my side, hand in hand, than in this same lonely road, although I know very well that those who meet or pass me here see only one person, and that a man of several times ten years. But, thank Heaven, we are not always alone when we seem to be.

DALLAS LORE SHARP

THE MUSKRATS ARE BUILDING

WE have had a series of long, heavy rains, and water is standing over the swampy meadow. It is a dreary stretch, this wet, sedgy land in the cold twilight, drearier than any part of the woods or the upland pastures. They are empty, but the meadow is flat and wet, naked and all unsheltered. And a November night is falling.

The darkness deepens. A raw wind is rising. At nine o'clock the moon swings round and full to the crest of the ridge, and pours softly over. I button the heavy ulster close, and in my rubber boots go down to the river and follow it out to the middle of the meadow, where it meets the main ditch at the sharp turn toward the swamp. Here at the bend, behind a clump of black alders, I sit quietly down and wait.

I am not mad, nor melancholy; I am not after copy. Nothing is the matter with me. I have come out to the bend to watch the muskrats building, for that small mound up the ditch is not an old haycock, but a half-finished muskrat house.

The moon climbs higher. The water on the meadow shivers in the light. The wind bites through my heavy coat and sends me back, but not until I have seen one, two, three little figures scaling the walls of the house with loads of mud-and-reed mortar. I am driven back by the cold, but not until I know that here in the desolate meadow is being rounded off a lodge, thick-walled

and warm, and proof against the longest, bitterest of winters.

This is near the end of November. My wood is in the cellar; I am about ready to put on the double windows and storm doors; and the muskrats' house is all but finished. Winter is at hand: but we are prepared, the muskrats even better prepared than I, for theirs is an adequate house, planned perfectly.

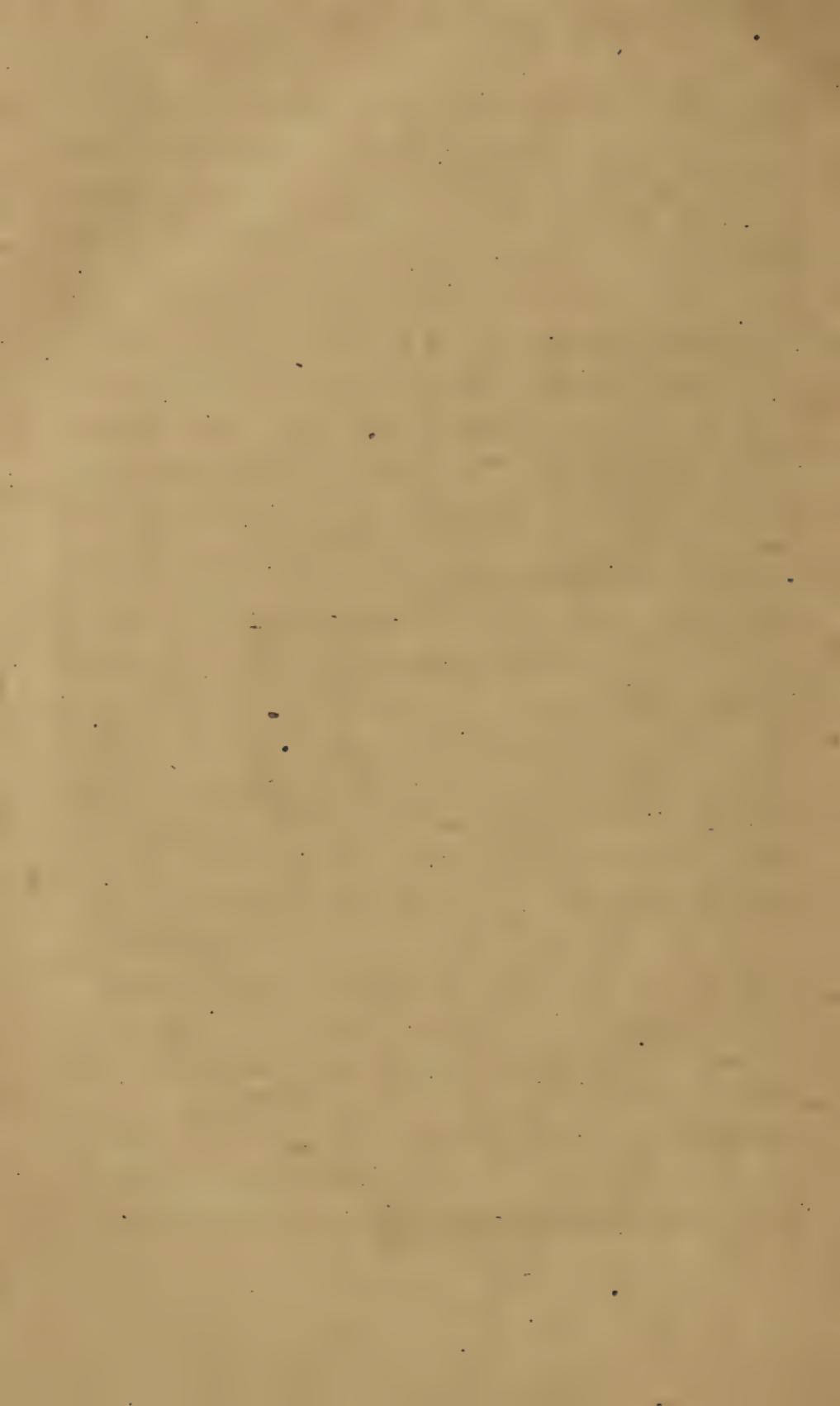
Throughout the summer they had no house, only their tunnels into the sides of the ditch, their roadways out into the grass, and their beds under the tussocks or among the roots of the old stumps. All these months the water had been low in the ditch, and the beds among the tussocks had been safe and dry enough.

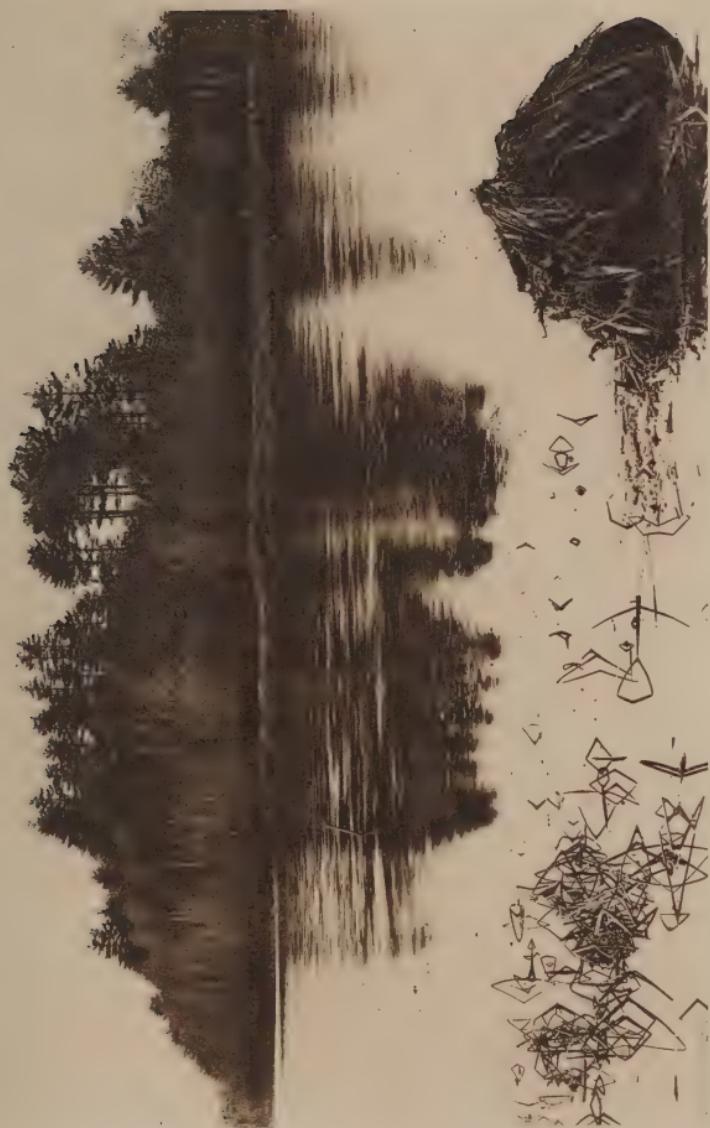
Now the autumnal rains have filled river and ditch, flooded the tunnels, and crept up into the beds under the tussocks. Even a muskrat will creep out of his bed when cold, wet water creeps in. What shall he do for a house? He does not want to leave his meadow. The only thing to do is to build, — move from under the tussock, out upon the top, and here, in the deep, wiry grass, make a new bed, high and dry above the rising water, and close the new bed in with walls that circle and dome and defy the winter.

Such a house will require a great deal of work to build. Why not combine, make it big enough to hold half a dozen, save labor and warmth, and, withal, live sociably together? So they left each one his bed and, joining efforts, started about the middle of October to build this winter house.

Slowly, night after night, the domed walls have been

The Muskrats' House





rising, although for several nights at a time there would be no apparent progress with the work. The builders were in no hurry, it seems; the cold was far off; but it is coming, and to-night it feels near and keen. And to-night there is no loafing about the lodge.

When this house is done, then the rains may descend, and the floods come, but it will not fall. It is built upon a tussock; and a tussock, you will know, who have ever grubbed at one, has hold on the bottom of creation. The winter may descend, and the boys, and foxes, come,—and they will come, but not before the walls are frozen,—yet the house stands. It is boy-proof, almost; it is entirely rain-, cold-, and fox-proof. Many a time I have hacked its walls with my axe when fishing through the ice, but I never got in. I have often seen, too, where the fox has gone round and round the house in the snow, and where, at places, he has attempted to dig into the frozen mortar; but it was a foot thick, as hard as flint, and utterly impossible for his pick and shovel.

Yet, strangely enough, the house sometimes fails of the very purpose for which it was erected. I said the floods may come. So they may, ordinarily; but along in March when one comes as a freshet, it rises sometimes to the dome of the house, filling the single bed-chamber and drowning the dwellers out. I remember a freshet once in the end of February that flooded Lupton's Pond and drove the muskrats of the whole pond village to their ridgepoles, to the bushes, and to whatever wreckage the waters brought along.

“The best laid schemes o' *muskrats* too
Gang aft a-gley.”

But ganging a-gley is not the interesting thing, not the point with my muskrats; it is rather that my muskrats, and the mice that Burns ploughed up, the birds and the bees, and even the very trees of the forest, have foresight. They all look ahead and provide against the coming cold. That a mouse, or a muskrat, or even a bee, should occasionally prove foresight to be vain, only shows that the life of the fields is very human. Such foresight, however, oftener proves entirely adequate for the winter, dire as some of the emergencies are sure to be.

“The north wind doth blow,
And we shall have snow,
And what will Robin do then,
Poor thing?”

And what will Muskrat do? and Chipmunk? and Whitefoot? and little Chickadee? poor things! Never fear. Robin has heard the trumpets of the north wind and is retreating leisurely toward the south, wise thing! Muskrat is building a warm winter lodge; Chipmunk has already dug his but and ben, and so far down under the stone wall that a month of zeros could not break in; Whitefoot, the woodmouse, has stored the hollow poplar stub full of acorns, and has turned Robin’s deserted nest, near by, into a cosy house; and Chickadee, dear thing, Nature herself looks after him. There are plenty of provisions for the hunting, and a big piece of suet on my lilac bush. His clothes are warm, and he will hide his head under his wing in the elm-tree hole when the north wind doth blow, and never mind the weather.

I shall not mind it either, not so much, anyway, on

account of Chickadee. He lends me a deal of support. So do Chipmunk, Whitefoot, and Muskrat.

This lodge of my muskrats in the meadow makes a difference, I am sure, of at least ten degrees in the mean temperature of my winter. How can the out-of-doors freeze entirely up with such a house as this at the middle of it? For in this house is life, warm life, — and fire. On the coldest day I can look out over the bleak white waste to where the house shows, a tiny mound in the snow, and I can see the fire burn, just as I can see and feel the glow when I watch the slender blue wraith rise into the still air from the chimney of the old farmhouse along the road below. For I share in the life of both houses; and not less in the life of the mud house of the meadow, because, instead of Swedes, they are muskrats who live there. I can share the existence of a muskrat? Easily. I like to curl up with the three or four of them in that mud house and there spend the worst days of the winter. My own big house here on the hilltop is sometimes cold. And the wind! If sometimes I could only drive the insistent winter wind from the house-corners! But down in the meadow the house has no corners; the mud walls are thick, so thick and round that the shrieking wind sweeps past unheard, and all unheeded the cold creeps over and over the thatch, then crawls back and stiffens upon the meadow.

The doors of our house in the meadow swing open the winter through. Just outside the doors stand our stacks of fresh calamus roots, and iris, and arum. The roof of the universe has settled close and hard upon us, — a sheet of ice extending from the ridge of the house

far out to the shores of the meadow. The winter is all above the roof — outside. It blows and snows and freezes out there. In here, beneath the ice-roof, the roots of the sedges are pink and tender; our roads are all open and they run every way, over all the rich, rooty meadow.

The muskrats are building. Winter is coming. The muskrats are making preparations, but not they alone. The preparation for hard weather is to be seen everywhere, and it has been going on ever since the first flocking of the swallows back in July. Up to that time the season still seemed young; no one thought of harvest, of winter; — when there upon the telegraph-wires one day were the swallows, and work against the winter had commenced.

The great migratory movements of the birds, mysterious in some of their courses as the currents of the sea, were in the beginning, and are still, for the most part, mere shifts to escape the cold. Why in the spring these same birds should leave the southern lands of plenty and travel back to the hungrier north to nest, is not easily explained. Perhaps it is the home instinct that draws them back; for home to birds (and men) is the land of the nest. However, it is very certain that among the autumn migrants there would be at once a great falling off should there come a series of warm open winters with abundance of food.

Bad as the weather is, there are a few of the seed-eating birds, like the quail, and some of the insect-eaters, like the chickadee, who are so well provided for that they can stay and survive the winter. But the great

majority of the birds, because they have no storehouse nor barn, must take wing and fly away from the lean and hungry cold.

And I am glad to see them go. The thrilling honk of the flying wild geese out of the November sky tells me that the hollow forests and closing bays of the vast desolate north are empty now, except for the few creatures that find food and shelter in the snow. The wild geese pass, and I hear behind them the clang of the arctic gates, the boom of the bolt — then the long frozen silence. Yet it is not for long. Soon the bar will slip back, the gates will swing wide, and the wild geese will come honking over, swift to the greening marshes of the arctic bays once more.

Here in my own small woods and marshes there is much getting ready, much comforting assurance that Nature is quite equal to herself, that winter is not approaching unawares. There will be great lack, no doubt, before there is plenty again ; there will be suffering and death. But what with the migrating, the strange, deep sleeping, the building and harvesting, there will be also much comfortable, much joyous and sociable living.

Long before the muskrats began to build, even before the swallows commenced to flock, my chipmunks started their winter stores. I don't know which began his work first, which kept harder at it, chipmunk or the provident ant. The ant has come by a reputation for thrift, which, though entirely deserved, is still not the exceptional virtue it is made to seem. Chipmunk is just as thrifty. So is the busy bee. It is the thought of approaching winter that keeps the bee busy far beyond her summer

needs. Much of her labor is entirely for the winter. By the first of August she has filled the brood chamber with honey — forty pounds of it, enough for the hatching bees and for the whole colony until the willows tassel again. But who knows what the winter may be? How cold and long drawn out into the coming May? So the harvesting is pushed with vigor on to the flowering of the last autumn asters — on until fifty, a hundred, or even three hundred pounds of surplus honey are sealed in the combs, and the colony is safe should the sun not shine again for a year and a day.

But here is Nature, in these extra pounds of honey, making preparation for me, incapable drone that I am. I could not make a drop of honey from a whole forest of linden bloom. Yet I must live, so I give the bees a bigger gum log than they need; I build them greater barns; and when the harvest is all in, this extra store I make my own. I too with the others am getting ready for the cold.

It is well that I am. The last of the asters have long since gone; so have the witch-hazels. All is quiet about the hives. The bees have formed into their warm winter clusters upon the combs, and except "when come the calm, mild days," they will fly no more until March or April. I will contract their entrances, — put on their storm doors. And now there is little else that I can do but put on my own.

The whole of my out-of-doors is a great hive, stored and sealed for the winter, its swarming life close-clustered, and covering in its centre, as coals in the ashes, the warm life-fires of summer.

I stand along the edge of the hillside here and look down the length of its frozen slope. The brown leaves have drifted into the entrances, as if every burrow were forsaken; sand and sticks have washed in, too, littering and choking the doorways.

There is no sign of life. A stranger would find it hard to believe that my whole drove of forty-six ground-hogs (woodchucks) are gently snoring at the bottoms of these old uninteresting holes. Yet here they are, and quite out of danger, sleeping the sleep of the furry, the fat, and the forgetful.

The woodchuck's is a curious shift, a case of Nature outdoing herself. Winter spreads far and fast, and Woodchuck, in order to keep ahead out of danger, would need wings. But he was n't given any. Must he perish then? Winter spreads far, but does not go deep — down only about four feet; and Woodchuck, if he cannot escape overland, can, perhaps, *underland*. So down he goes *through* the winter, down into a mild and even temperature, five long feet away — but as far away from the snow and cold as Bobolink among the reeds of the distant Orinoco.

Indeed, Woodchuck's is a farther journey and even more wonderful than Bobolink's, for these five feet carry him beyond the bounds of time and space into the mysterious realm of sleep, of suspended life, to the very gates of death. That he will return with Bobolink, that he will come up alive with the spring out of this dark way, is very strange.

For he went in most meagrely prepared. He took nothing with him, apparently. The muskrat built him

a house, and under the spreading ice turned all the meadow into a well-stocked cellar. The beaver built a dam, cut and anchored under water a plenty of green sticks near his lodge, so that he too would be under cover when the ice formed, and have an abundance of tender bark at hand. Chipmunk spent half of his summer laying up food near his underground nest. But Woodchuck simply digged him a hole, a grave, then ate until no particle more of fat could be got into his baggy hide, and then crawled into his tomb, gave up the ghost, and waited the resurrection of the spring.

This is his shift! This is the length to which he goes, because he has no wings, and because he cannot cut, cure, and mow away in the depths of the stony hillside, enough clover hay to last him over the winter. The beaver cans his fresh food in cold water; the chipmunk selects long-keeping things and buries them; the woodchuck makes of himself a silo, eats all his winter hay in the summer while it is green, turns it at once into a surplus of himself, then buries that self, feeds upon it, and sleeps — and lives!

“The north wind doth blow,
And we shall have snow.”

but what good reason is there for our being daunted at the prospect? Robin and all the others are well prepared. Even the wingless frog, who is also lacking in fur and feathers and fat, even he has no care at the sound of the cold winds. Nature provides for him too, in her way, which is the way neither for the robin, the muskrat, nor the woodchuck. He survives, and all he

has to do about it is to dig into the mud at the bottom of the ditch. This looks at first like the journey Wood-chuck takes. But it is really a longer, stranger journey than Woodchuck's, for it takes the frog far beyond the realms of mere sleep, on into the cold, black land where no one can tell the quick from the dead.

The frost may or may not reach him here in the ooze. No matter. If the cold works down and freezes him into the mud, he never knows. But he will thaw out as good as new; he will sing again for joy and love as soon as his heart warms up enough to beat.

I have seen frogs frozen into the middle of solid lumps of ice in the laboratory. Drop the lump on the floor, and the frog would break out like a fragment of the ice itself. And this has happened more than once to the same frog without causing him the least apparent suffering or inconvenience. He would come to, and croak, and look as wise as ever.

“The north wind *may* blow,”

but the muskrats are building; and it is by no means a cheerless prospect, this wood-and-meadow world of mine in the gray November light. The frost will not fall to-night as falls the plague on men; the brightness of the summer is gone, yet this chill gloom is not the sombre shadow of a pall. Nothing is dying in the fields: the grass-blades are wilting, the old leaves are falling, but no square foot of greensward will the winter kill, nor a single tree perhaps in my wood-lot. There will be no less of life next April because of this winter, unless, perchance, conditions altogether exceptional starve

some of the winter birds. These suffer most; yet as the seasons go, life even for the winter birds is comfortable and abundant.

The fence-rows and old pastures are full of berries that will keep the fires burning in the quail and partridge during the bitterest weather. Last February, however, I came upon two partridges in the snow, dead of hunger and cold. It was after an extremely long severe spell. But this was not all. These two birds since fall had been feeding regularly in the dried fodder corn that stood shocked over the field. One day all the corn was carted away. The birds found their supply of food suddenly cut off, and, unused to foraging the fence-rows and tangles for wild seeds, they seem to have given up the struggle at once, although within easy reach of plenty.

Hardly a minute's flight away was a great thicket of dwarf sumac covered with berries; there were bayberries, rose-hips, green-brier, bittersweet, black-alder, and checkerberries — hillsides of the latter — that they might have found. These were hard fare, doubtless, after an unstinted supply of sweet corn; but still they were plentiful, and would have been sufficient had the birds made use of them.

The smaller birds of the winter, like the tree sparrow and junco, feed upon the weeds and grasses that ripen unmolested along the roadsides and waste places. A mixed flock of these small birds lived several days last winter upon the seeds of the ragweed in my mowing. The weeds came up in the early fall after the field was laid down to clover and timothy. They threatened to choke out the grass. I looked at them, rising shoulder-

high and seedy over the greening field, and thought with dismay of how they would cover it by the next fall. After a time the snow came, a foot and a half of it, till only the tops of the seedy ragweeds showed above the level white; then the juncos, goldfinches, and tree sparrows came, and there was a five-day shucking of ragweed-seed in the mowing, and five days of life and plenty.

Then I looked and thought again — that, perhaps, into the original divine scheme of things were put even ragweeds. But then, perhaps, there was no original divine scheme of things. I don't know. As I watch the changing seasons, however, across the changeless years, I seem to find a scheme, a plan, a purpose, and there are weeds and winters in it, and it seems divine.

The muskrats are building; the last of the migrating geese have gone over; the wild mice have harvested their acorns; the bees have clustered; the woodchucks are asleep; and the sap in the big hickory by the side of the house has crept down out of reach of the fingers of the frost. I will put on the storm doors and the double windows. Even now the logs are blazing cheerily on the wide, warm hearth.

CHRISTMAS IN THE WOODS

ON the night before this particular Christmas every creature of the woods that could stir was up and stirring, for over the old snow was falling swiftly, silently, a soft, fresh covering that might mean a hungry Christmas unless the dinner were had before morning.

But when the morning dawned, a cheery Christmas sun broke across the great gum swamp, lighting the snowy boles and soft-piled limbs of the giant trees with indescribable glory, and pouring, a golden flood, into the deep spongy bottoms below. It would be a perfect Christmas in the woods, clear, mild, stirless, with silent footing for me, and everywhere the telltale snow.

And everywhere the Christmas spirit, too. As I paused among the pointed cedars of the pasture, looking down into the cripple at the head of the swamp, a clear wild whistle rang in the thicket, followed by a flash through the alders like a tongue of fire, as a cardinal grosbeak shot down to the tangle of green-brier and magnolia under the slope. It was a fleck of flaming summer. As warm as summer, too, the stag-horn sumac burned on the crest of the ridge against the group of holly trees,—trees as fresh as April, and all aglow with berries. The woods were decorated for the holy day. The gentleness of the soft new snow touched everything; cheer and good-will lighted the unclouded sky and warmed the thick depths of the evergreens, and blazed

in the crimson-berried bushes of the ilex and alder. The Christmas woods were glad.

Nor was the gladness all show, mere decoration. There was real cheer in abundance, for I was back in the old home woods, back along the Cohansey, back where you can pick persimmons off the trees at Christmas. There are persons who say the Lord might have made a better berry than the strawberry, but He did n't. Perhaps He did n't make the strawberry at all. But He did make the Cohansey Creek persimmon, and He made it as good as He could. Nowhere else under the sun can you find such persimmons as these along the creek, such richness of flavor, such gummy, candied quality, woodsy, wild, crude, — especially the fruit of two particular trees on the west bank, near Lupton's Pond. But they never come to this perfection, never quite lose their pucker, until midwinter, — as if they had been intended for the Christmas table of the woods.

It had been nearly twenty years since I crossed this pasture of the cedars on my way to the persimmon trees. The cows had been crossing every year, yet not a single new crook had they worn in the old paths. But I was half afraid as I came to the fence where I could look down upon the pond and over to the persimmon trees. Not one of the Luptons, who owned pasture and pond and trees, had ever been a boy, so far as I could remember, or had ever eaten of those persimmons. Would they have left the trees through all these years?

I pushed through the hedge of cedars and stopped for an instant, confused. The very pond was gone! and the trees! No, there was the pond, — but how small the

patch of water! and the two persimmon trees? The bush and undergrowth had grown these twenty years. Which way—Ah, there they stand, only their leafless tops showing; but see the hard angular limbs, how closely globed with fruit! how softly etched upon the sky!

I hurried around to the trees and climbed the one with the two broken branches, up, clear up to the top, into the thick of the persimmons.

Did I say it had been twenty years? That could not be. Twenty years would have made me a man, and this sweet, real taste in my mouth only a *boy* could know. But there was college, and marriage, a Massachusetts farm, four boys of my own, and — no matter! it could not have been *years* — twenty years — since. It was only yesterday that I last climbed this tree and ate the rich rimy fruit frosted with a Christmas snow.

And yet, could it have been yesterday? It was storming, and I clung here in the swirling snow and heard the wild ducks go over in their hurry toward the bay. Yesterday, and all this change in the vast tree-top world, this huddled pond, those narrowed meadows, that shrunken creek! I should have eaten the persimmons and climbed straight down, not stopped to gaze out upon the pond, and away over the dark ditches to the creek. But, reaching out quickly, I gathered another handful, — and all was yesterday again.

I filled both pockets of my coat and climbed down. I kept those persimmons and am tasting them to-night. Lupton's Pond may fill to a puddle, the meadows may shrivel, the creek dry up and disappear, and old Time may even try his wiles on me. But I shall foil him to the

end; for I am carrying still in my pocket some of yesterday's persimmons, — persimmons that ripened in the rime of a winter when I was a boy.

High and alone in a bare persimmon tree for one's dinner hardly sounds like a merry Christmas. But I was not alone. I had noted the fresh tracks beneath the tree before I climbed up, and now I saw that the snow had been partly brushed from several of the large limbs as the 'possum had moved' about in the tree for his Christmas dinner. We were guests at the same festive board, and both of us at Nature's invitation. It mattered not that the 'possum had eaten and gone this hour or more. Such is good form in the woods. He was expecting me, so he came early, out of modesty, and, that I too might be entirely at my ease, he departed early, leaving his greetings for me in the snow.

Thus I was not alone; here was good company and plenty of it. I never lack a companion in the woods when I can pick up a trail. The 'possum and I ate together. And this was just the fellowship I needed, this sharing the persimmons with the 'possum. I had broken bread, not with the 'possum only, but with all the out-of-doors. I was now fit to enter the woods, for I was filled with good-will and persimmons, as full as the 'possum; and putting myself under his gentle guidance, I got down upon the ground, took up his clumsy trail, and descended toward the swamp. Such an entry is one of the particular joys of the winter. To go in with a fox, a mink, or a 'possum through the door of the woods is to find yourself at home. Any one can get inside the out-of-doors, as the grocery boy or the census man gets inside

our houses. You can bolt in at any time on business. A trail, however, is Nature's invitation. There may be other, better beaten paths for mere feet. But go softly with the 'possum, and at the threshold you are met by the spirit of the wood, you are made the guest of the open, silent, secret out-of-doors.

I went down with the 'possum. He had traveled home leisurely and without fear, as his tracks plainly showed. He was full of persimmons. A good happy world this, where such fare could be had for the picking! What need to hurry home, except one were in danger of falling asleep by the way? So I thought, too, as I followed his winding path; and if I was tracking him to his den, it was only to wake him for a moment with the compliments of the season. But it was not even a momentary disturbance; for when I finally found him in his hollow gum, he was sound asleep, and only half realized that some one was poking him gently in the ribs and wishing him a merry Christmas.

The 'possum had led me to the centre of the empty, hollow swamp, where the great-boled gums lifted their branches like a timbered, unshingled roof between me and the wide sky. Far away through the spaces of the rafters I saw a pair of wheeling buzzards, and under them, in lesser circles, a broad-winged hawk. Here, at the feet of the tall, clean trees, looking up through the leafless limbs, I had something of a measure for the flight of the birds. The majesty and the mystery of the distant buoyant wings were singularly impressive.

I have seen the turkey-buzzard sailing the skies on the bitterest winter days. To-day, however, could

hardly be called winter. Indeed, nothing yet had felt the pinch of the cold. There was no hunger yet in the swamp, though this new snow had scared the raccoons out, and their half-human tracks along the margin of the swamp stream showed that, if not hungry, they at least feared that they might be.

For a coon hates snow. He will invariably sleep off the first light snowfalls, and even in the late winter he will not venture forth in fresh snow unless driven by hunger or some other dire need. Perhaps, like a cat or a hen, he dislikes the wetting of his feet. Or it may be that the soft snow makes bad hunting — for him. The truth is, I believe, that such a snow makes too good hunting for the dogs and the gunner. The new snow tells too clear a story. His home is no inaccessible den among the ledges; only a hollow in some ancient oak or tupelo. Once within, he is safe from the dogs, but the long fierce fight for life taught him generations ago that the nest-tree is a fatal trap when behind the dogs come the axe and the gun. So he has grown wary and enduring. He waits until the snow grows crusty, when without sign, and almost without scent, he can slip forth among the long shadows and prowl to the edge of dawn.

Skirting the stream out toward the higher back woods, I chanced to spy a bunch of snow in one of the great sour gums that I thought was an old nest. A second look showed me tiny green leaves, then white berries, then mistletoe.

It was not a surprise, for I had found it here before, — a long, long time before. It was back in my schoolboy days, back beyond those twenty years, that I first stood

here under the mistletoe and had my first romance. There was no chandelier, no pretty girl, in that romance, — only a boy, the mistletoe, the giant trees, and the sombre silent swamp. Then there was his discovery, the thrill of deep delight, and the wonder of his knowledge of the strange, unnatural plant! All plants had been plants to him until, one day, he read the life of the mistletoe. But that was English mistletoe; so the boy's wonder-world of plant-life was still as far away as Mars, when, rambling alone through the swamp along the creek, he stopped under a big curious bunch of green, high up in one of the gums, and — made his first discovery.

So the boy climbed up again this Christmas Day at the peril of his precious neck, and brought down a bit of that old romance.

I followed the stream along through the swamp to the open meadows, and then on under the steep wooded hillside that ran up to the higher land of corn and melon fields. Here at the foot of the slope the winter sun lay warm, and here in the sheltered briery border I came upon the Christmas birds.

There was a great variety of them, feeding and preening and chirping in the vines. The tangle was a-twitter with their quiet, cheery talk. Such a medley of notes you could not hear at any other season outside a city bird store. How far the different species understood one another I should like to know, and whether the hum of voices meant sociability to them, as it certainly meant to me. Doubtless the first cause of their flocking here was the sheltered warmth and the great numbers of berry-

laden bushes, for there was no lack of either abundance or variety on the Christmas table.

In sight from where I stood hung bunches of withering chicken or frost grapes, plump clusters of blue-black berries of the green-brier, and limbs of the smooth winterberry bending with their flaming fruit. There were bushes of crimson ilex, too, trees of fruiting dogwood and holly, cedars in berry, dwarf sumac and seedy sedges, while patches on the wood slopes uncovered by the sun were spread with trailing partridge-berry and the coral-fruited wintergreen. I had eaten part of my dinner with the 'possum; I picked a quantity of these wintergreen berries, and continued my meal with the birds. And they also had enough and to spare.

Among the birds in the tangle was a large flock of northern fox sparrows, whose vigorous and continuous scratching in the bared spots made a most lively and cheery commotion. Many of them were splashing about in tiny pools of snow-water, melted partly by the sun and partly by the warmth of their bodies as they bathed. One would hop to a softening bit of snow at the base of a tussock, keel over and begin to flop, soon sending up a shower of sparkling drops from his rather chilly tub. A winter snow-water bath seemed a necessity, a luxury indeed, for they all indulged, splashing with the same purpose and zest that they put into their scratching among the leaves.

A much bigger splashing drew me quietly through the bushes to find a marsh hawk giving himself a Christmas souse. The scratching, washing, and talking of the birds; the masses of green in the cedars, holly, and

laurels; the glowing colors of the berries against the snow; the blue of the sky, and the golden warmth of the light made Christmas in the heart of the noon that the very swamp seemed to feel.

Three months later there was to be scant picking here, for this was the beginning of the severest winter I ever knew. From this very ridge, in February, I had reports of berries gone, of birds starving, of whole coveys of quail frozen dead in the snow; but neither the birds nor I dreamed to-day of any such hunger and death. A flock of robins whirled into the cedars above me; a pair of cardinals whistled back and forth; tree sparrows, juncos, nuthatches, chickadees, and cedar-birds cheeped among the trees and bushes; and from the farm lands at the top of the slope rang the calls of meadowlarks.

Halfway up the hill I stopped under a blackjack oak, where, in the thin snow, there were signs of something like a Christmas revel. The ground was sprinkled with acorn-shells and trampled over with feet of several kinds and sizes, — quail, jay, and partridge feet, rabbit, squirrel, and mice feet, all over the snow as the feast of acorns had gone on. Hundreds of the acorns were lying about, gnawed away at the cup end, where the shell was thinnest, many of them further broken and cleaned out by the birds.

As I sat studying the signs in the snow, my eye caught a tiny trail leading out from the others straight away toward a broken pile of cord-wood. The tracks were planted one after the other, so directly in line as to seem like the prints of a single foot. "That's a weasel's trail," I said, "the death's-head at this feast," and fol-

lowed it slowly to the wood. A shiver crept over me as I felt, even sooner than I saw, a pair of small sinister eyes fixed upon mine. The evil pointed head, heavy but alert, and with a suggestion of fierce strength out of all relation to the slender body, was watching me from between the sticks of cord-wood. And so he had been watching the mice and birds and rabbits feasting under the tree!

I packed a ball of snow round and hard, slipped forward upon my knees, and hurled it. "Spat!" it struck the end of a stick within an inch of the ugly head, filling the crevice with snow. Instantly the head appeared at another crack, and another ball struck viciously beside it. Now it was back where it first appeared, and did not flinch for the next, nor the next ball. The third went true, striking with a "chug" and packing the crack. But the black, hating eyes were still watching me a foot lower down.

It is not all peace and good-will in the Christmas woods. But there is more of peace and good-will than of any other spirit. The weasels are few. More friendly and timid eyes were watching me than bold and murderous. It was foolish to want to kill — even the weasel. For one's woods are what one makes them, and so I let the man with the gun, who chanced along, think that I had turned boy again, and was snowballing the wood-pile, just for the fun of trying to hit the end of the biggest stick.

I was glad he had come. As he strode off with his stained bag I felt kindlier toward the weasel. There were worse in the woods than he, — worse, because all

of their killing was pastime. The weasel must kill to live, and if he gloated over the kill, why, what fault of his? But the other weasel, the one with the blood-stained bag, he killed for the love of killing. I was glad he was gone.

The crows were winging over toward their great roost in the pines when I turned toward the town. They, too, had had good picking along the creek flats and ditches of the meadows. Their powerful wing-beats and constant play told of full crops and no fear for the night, already softly gray across the white silent fields. The air was crisper; the snow began to crackle under foot; the twigs creaked and rattled as I brushed along; a brown beech leaf wavered down and skated with a thin scratch over the crust; and pure as the snow-wrapped crystal world, and sweet as the soft gray twilight, came the call of a quail.

The voices, colors, odors, and forms of summer were gone. The very face of things had changed; all had been reduced, made plain, simple, single, pure! There was less for the senses, but how much keener now their joy! The wide landscape, the frosty air, the tinkle of tiny icicles, and, out of the quiet of the falling twilight, the voice of the quail!

There is no day but is beautiful in the woods; and none more beautiful than one like this Christmas Day, — warm and still, and wrapped, to the round red berries of the holly, in the magic of the snow.

AN ACCOUNT WITH NATURE

HERE were chipmunks everywhere. The stone walls squeaked with them. At every turn, from early spring to early autumn, a chipmunk was scurrying away from you. Chipmunks were common. They did no particular harm, no particular good ; they did nothing in particular, being only chipmunks and common, until one morning (it was June-bug time) I stopped and watched a chipmunk that sat atop the stone wall down in the orchard. He was eating, and the shells of his meal lay in a little pile upon the big flat stone which served as his table.

They were acorn-shells, I thought, yet June seemed rather early in the season for acorns, and, looking closer, I discovered that the pile was entirely composed of June-bug-shells, — wings and hollow bodies of the pestiferous beetles !

Well, well ! I had never seen this before, never even heard of it. Chipmunk, a *useful* member of society ! actually eating bugs in this bug-ridden world of mine ! This was interesting and important. Why, I had really never known Chipmunk, after all !

So I had n't. He had always been too common. Flying squirrels were more worth while, because there were none on the farm. Now, however, I determined to cultivate the acquaintance of Chipmunk, for there might be other discoveries awaiting me.

And there were. A narrow strip of grass separated the

orchard and my garden patch. It was on my way to the garden that I most often stopped to watch this chipmunk, or rather the pair of them, in the orchard wall. June advanced, the beetles disappeared, and my garden grew apace. For the first time in four years there were prospects of good strawberries. Most of my small patch was given over to a new berry, one that I had originated, and I was waiting with an eagerness which was almost anxiety for the earliest berries.

The two chipmunks in the wall were now seven, the young ones quite as large as their parents, and both young and old on the best of terms with me.

I had put a little stick beside each of the three big berries that were reddening first (though I could have walked from the house blindfolded and picked them). I might have had the biggest of the three on June 7th, but for the sake of the flavor I thought it best to wait another day. On the 8th I went down with a box to get it. The big berry was gone, and so was one of the others, while only half of the third was left on the vine!

Gardening has its disappointments, its seasons of despair, — and wrath, too. Had a toad showed himself at that moment he would have fared badly. I snatched a stone and let it go at a robin flying over, for more than likely it was he who had stolen my berries. On the garden wall sat a friendly chipmunk eyeing me sympathetically.

Three days later several fine berries were ripe. On my way to the garden I passed the chipmunks in the orchard. A shining red spot among the vine-covered stones of their wall brought me to a stop, for I thought, on the instant, that it was my rose-breasted grosbeak,

and that I was about to get a clue to its nest. Then up to the slab where he ate the June-bugs scrambled the chipmunk, and the rose-red spot on the breast of the grosbeak dissolved into a big scarlet-red strawberry. And by its long wedge shape I knew it was one of my new variety.

I hurried across to the patch and found every berry gone, while a line of bloody fragments led me back to the orchard wall, where a half-dozen fresh calyx-crowns completed my second discovery.

No, it did not complete it. It took a little watching to find out that the whole family — all seven! — were after berries. They were picking them half-ripe, even, and actually storing them away, canning them down in the cavernous depths of the stone-pile!

Alarmed? Yes, and I was wrathful, too. The taste for strawberries is innate, original; you can't be human without it. But joy in chipmunks is a cultivated liking, æsthetic in its nature. What chance in such a circumstance has the nature-lover with the human man? What shadow of doubt as to his choice between the chipmunks and the strawberries?

I had no gun then and no time to go over to my neighbor's to borrow his. So I stationed myself near by with a fistful of stones, and waited for the thieves to show themselves. I came so near to hitting one of them once that the sweat started all over me. After that there was no danger. I lost my nerve. The little scamps knew that war was declared, and they hid and dodged and sighted me so far off that even with a gun I should have been all summer killing the seven of them.

Meantime, a big rain and the warm June days were turning the berries red by the quart. They had more than caught up to the squirrels. I dropped my stones and picked. The squirrels picked, too, so did the toads and robins. Everybody picked. It was free for all. We picked them and ate them, jammed them and canned them. I almost carried some over to my neighbor, but took peas instead. You simply can't give your strawberries in New England to ordinary neighbors, who are not of your choosing. You have no fears at all as to what they will say to your peas.

The season closed on the Fourth of July, and our taste was not dim nor this natural love for strawberries abated; but all four of the small boys had the hives from over-indulgence, so bountifully did nature provide, so many did the seven chipmunks leave!

Peace between me and the chipmunks had been signed before the strawberry season closed, and the pact still holds. Other things have occurred since to threaten it, however. Among them, an article in a recent number of a carefully edited out-of-door magazine of wide circulation. Herein the chipmunk family was most roundly rated, in fact condemned to annihilation because of its wicked taste for birds' eggs and for young birds. Numerous photographs accompanied the article, showing the red squirrel with eggs in his mouth, but no such proof (even the red squirrel photographs I strongly believe were done from a *stuffed* squirrel) of Chipmunk's guilt, though he was counted equally bad and, doubtless, will suffer with Chickaree at the hands of those who took the article seriously.

I believe that is a great mistake. Indeed, I believe the whole article a deliberate falsehood, concocted in order to sell the fake photographs. Chipmunk is not an egg-sucker, else I should have found it out. But because I never caught him at it does not mean that no one else has. It does mean, however, that if Chipmunk robs at all he does it so seldom as to call for no alarm nor for any retribution.

There is scarcely a day in the nesting-season when I fail to see half a dozen chipmunks about the walls, yet I never noticed one even suspiciously near a bird's nest. In an apple-tree, barely six jumps from the home of the family in the orchard wall, a brood of white-bellied swallows came to wing one spring; while robins, chippies, and red-eyed vireos — not to mention a cowbird, which I wish they had devoured — have also hatched and flown away from nests that these squirrels might easily have rifled.

It is not often that one comes upon even the red squirrel in the very act of robbing a nest. But the black snake, the glittering fiend! and the dear house cats! If I run across a dozen black snakes in the early summer, it is safe to say that six of them will be discovered by the cries of the birds they are robbing. Likewise the cats. No creature, however, larger than a June-bug was ever distressed by a chipmunk.

In a recent letter to me Mr. Burroughs says: "No, I never knew the chipmunk to suck or destroy eggs of any kind, and I have never heard of any well-authenticated instance of his doing so. The red squirrel is the sinner in this respect, and probably the gray squirrel also."

It will be difficult to find a true bill against him. Were the evidence all in, I believe that instead of a culprit we should find Chipmunk a useful citizen. I reckon that the pile of June-bug bodies on the flat stone leaves me still in debt to him even after the strawberries have been credited. He may err occasionally, and may, on occasion, make a nuisance of himself, — but so do my four small boys, bless them ! And, well — who does n't ? When a family of chipmunks, which you have fed all summer on the veranda, take up their winter quarters inside the closed cabin, and chew up your quilts, hammocks, tablecloths, and whatever else there is of chewable properties, then they are anathema.

The litter and havoc that those squirrels made were dreadful. But instead of exterminating them root and branch, a big box was prepared the next summer and lined with tin, in which the linen was successfully wintered.

But how real was the loss, after all ? Here is a rough log cabin on the side of Thorn Mountain. What sort of a tablecloth ought to be found in such a cabin, if not one that has been artistically chewed by chipmunks ? Is it for fine linen that we take to the woods in summer ? The chipmunks are well worth a tablecloth now and then, — well worth, besides these, all the strawberries and all the oats they can steal from my small patch.

Only it is n't stealing. Since I ceased throwing stones and began to watch the chipmunks carefully, I do not find their manner that of thieves in the least. They do not act as if they were taking what they have no right to. For who has told Chipmunk to earn his oats in the sweat of his brow ? No one. Instead he seems to under-

stand that he is one of the innumerable factors ordained to make me sweat, — a good and wholesome experience for me so long as I get the necessary oats.

And I get them, in spite of the chipmunks, though I don't like to guess at how much they carried off, — anywhere, I should say, from a peck to a bushel, which they stored, as they tried to store the berries, somewhere in the big recesses of the stone wall.

All this, however, is beside the point. It is n't a case of oats and berries against June-bugs. You don't haggle with Nature after that fashion. The farm is not a marketplace where you get exactly what you pay for. You must spend on the farm all you have of time and strength and brains; but you must not expect merely your money's worth. Infinitely more than that, and often-times less. Farming is like virtue, — its own reward. It pays the man who loves it, no matter how short the oats and corn.

So it is with Chipmunk. Perhaps his books don't balance, — a few June-bugs short on the credit side. What then? It is n't mere bugs and berries, as I have just suggested, but stone-piles. What is the difference in value to me between a stone-pile with and without a chipmunk in it? Just the difference, relatively speaking, between the house with or without my four boys in it.

Chipmunk, with his sleek, round form, his rich color and his stripes, is the daintiest, most beautiful of all our squirrels. He is one of the friendliest of my tenants, too, friendlier even than Chickadee. The two are very much alike in spirit, but however tame and confiding Chickadee may become, he is still a bird, and, despite

his wings, belongs to a different and a lower order of beings. Chickadee is often curious about me; he can be coaxed to eat from my hand. Chipmunk is more than curious; he is interested; and it is not crumbs that he wants, but friendship. He can be coaxed to eat from my lips, sleep in my pocket, and even come to be stroked.

I have sometimes seen Chickadee in winter when he seemed to come to me out of very need for living companionship. But in the flood-tide of summer life Chipmunk will watch me from his stone-pile and tag me along with every show of friendship.

The family in the orchard wall have grown very familiar. They flatter me. I really believe, to be Emersonian, that I am the great circumstance in this household. One of the number is sure to be sitting upon the high flat slab to await my coming. He sits on the very edge of the crack, to be truthful, and if I take a single step aside toward him he flips, and all there is left of him is a little angry squeak from the depths of the stones. If, however, I pass properly along, do not stop or make any sudden motions, he sees me past, then usually follows me, especially if I get well off and pause.

During a shower one day I halted under a large hickory just beyond his den. He came running after me, so interested that he forgot to look to his footing, and just opposite me slipped and bumped his nose hard against a stone, — so hard that he sat up immediately and vigorously rubbed it. Another time he followed me across to the garden and on to the barbed-wire fence along the meadow. Here he climbed a post and continued after me by way of the middle strand of the wire, wriggling,

twisting, even grabbing the barbs, in his efforts to maintain his balance. He got midway between the posts, when the sagging strand tripped him and he fell with a splash into a shallow pool below.

Did the family in the orchard wall stay together as a family for the first summer, I should like to know. As late as August they all seemed to be in the wall, for in August I cut my oats, and during this harvest they all worked together.

I mowed the oats as soon as they began to yellow, cocking them to cure for hay. It was necessary to let them "make" for six or seven days, and all this time the squirrels raced back and forth between the cocks and the stone wall. They might have hidden their gleanings in a dozen crannies nearer at hand; but evidently they had a particular storehouse, near the home nest, where the family could get at their provisions in bad weather without coming forth.

Had I removed the stones and dug out the nest, I should have found a tunnel leading into the ground for a few feet and opening into a chamber filled with a bulky grass nest, — a bed capable of holding half a dozen chipmunks, and adjoining this, by a short passageway, the storehouse of the oats.

How many trips they made between this crib and the oat-patch, how many kernels they carried in their pouches at a trip, and how big a pile they had when all the grains were in, — these are more of the questions I should like to know.

I might have killed one of the squirrels and numbered the contents of his pouches, but my scientific zeal does

not quite reach that pitch any more. The knowledge of just how many oat-kernels a chipmunk can stuff into his left cheek (into *both* cheeks he can put twenty-nine kernels of corn) is really not worth the cost of his life. Of course some one has counted them, — just as some one has counted the hairs on the tail of the dog of the child of the wife of the Wild Man of Borneo, or at least seriously guessed at the number.

But this is thesis work for the doctors of philosophy, not a task for farmers and mere watchers in the woods. The chipmunks are in no danger because of my zeal for science; not that I am uninterested in the capacity of their cheeks in terms of oats, but that I am more interested in the whole squirrel, the whole family of squirrels.

When the first frosts come, the family — if they are still a family — seek the nest in the ground beneath the stone wall. But they do not go to sleep immediately. Their outer entrances have not yet been closed. There is still plenty of fresh air, and, of course, plenty of food, — acorns, chestnuts, hickory-nuts, and oats. They doze quietly for a time and eat, pushing the empty shells and hulls into some side passage prepared beforehand to receive the débris.

But soon the frost is creeping down through the stones and earth overhead, the rains are filling the outer doorways and shutting off the supply of fresh air, and one day, though not sound sleepers, the family cuddles down and forgets to wake, — until the frost has begun to creep back toward the surface, and down through the softened soil is felt the thrill of the waking spring.

OLIVE THORNE MILLER

THE MOCKINGBIRD'S NEST

“Superb and sole upon a plumèd spray
That o'er the general leafage boldly grew,”

as literally as though Lanier had sketched that particular bird, stood the first free mockingbird I ever heard. His perch was the topmost twig of the tallest tree in the group. It was a cedar, perhaps fifteen feet high, around which a jasmine vine had clambered, and that morning opened a cluster of fragrant blossoms at his feet, as though an offering to the most noted singer on our side of the globe. As I drew near he turned his clear, bright eye upon me, and sang a welcome to North Carolina; and several hours later, when the moon rose high over the waters of the Sound, he completed his perfect performance with a serenade, the like of which I fear I may never hear again. I chose to consider his attentions personal, because, of all the household, I am sure I was the only one who listened, and I had passed over many miles of rolling and tossing ocean to make his acquaintance.

Nothing would have been easier, or more delightful, than to pitch one's tent in a certain pine grove not far away, and pass days and weeks in forgetting the world of cares, and reading favorite books, lulled at all hours of day and night by the softened roar of the ocean and the wonderful bird

“Singing the song of everything,
Consummate sweet, and calm.”

But it was not merely as singer that I wished to know him; nor to watch his dainty and graceful ways as he went about the daily duties of food-hunting, singing, and driving off marauders, which occupied his hours from dawn to late evening, and left him spirit enough for many a midnight rhapsody. It was in his domestic relations that I desired to see him, — the wooing of the bride and building the nest, the training of mocking-bird babies and starting them in the world; and no loitering and dreaming in the pine grove, however tempting, would tell me this. I must follow him to his more secluded retreats, see where he had set up his homestead.

Thoreau — or is it Emerson? — says one always finds what he looks for, and of course I found my nests. One pair of birds I noticed through the courtship, the selection of the site, the building and occupying of the nest; another couple, already sitting when discovered, I watched through the incubation and nursing of the little ones, and at last assisted in giving them a fair chance for their lives and a start in the world. It may be thought that my assistance was not particularly valuable; the birds shared this opinion; none the less, but for my presence not one of those birdlings would be free and happy to-day, as I hope and believe they are. To the study of these two households I gave nearly every hour of daylight, in all weathers, for a month, and of the life that went on in and around them I can speak from personal knowledge; beyond that, and at other times in his life, I do not profess to know the mocking-bird.

The bird whose nest-making I witnessed was the one whose performance I chose to consider a welcome, and his home was in the pine grove, a group of about twenty trees, left from the original forest possibly, at any rate nearly a hundred feet high, with all branches near the top, as though they had grown in close woods. They were quite scattering now, and lower trees and shrubs flourished in their shade, making a charming spot, and a home worthy even of this superb songster. The bird himself was remarkably friendly. Seeming to appreciate my attitude of admiring listener, he often perched on the peak of a low roof (separated only by a carriage drive from the upper "gallery" where I sat), and sang for hours at a time, with occasional lunches; or, as Lanier, his most ardent lover, has it, —

"Then down he shot, bounced airily along
The sward, twitched in a grasshopper, made song
. Midflight, perched, prinked, and to his art again."

Whatever he did, his eyes were upon me; he came to the corner nearest me to sing, and was so intelligent in look and bearing that I believe he liked a quiet listener.

His wooing, however, the bird did not intend me to see, though two or three times I surprised him at it. The first part that I chanced upon was curious and amusing. A female, probably the "beloved object," stood demurely on one of the dead top branches of a large tree down in the garden, while her admirer performed fantastic evolutions in the air about her. No flycatcher ever made half the eccentric movements this aerial acrobat indulged in. He flew straight up very high, execut-

ing various extraordinary turns and gyrations, so rapidly they could not be followed and described, and came back singing; in a moment he departed in another direction, and repeated the grotesque performance. He was plainly exerting himself to be agreeable and entertaining, in mockingbird style, and I noticed that every time he returned from an excursion he perched a little nearer his audience of one, until, after some time, he stood upon the same twig, a few inches from her. They were facing and apparently trying to stare each other out of countenance; and as I waited, breathless, to see what would happen next, the damsel coquettishly flitted to another branch. Then the whole scene was repeated; the most singular and graceful evolutions, the songs, and the gradual approach. Sometimes, after alighting on a top twig, he dropped down through the branches, singing, in a way to suggest the "dropping song" so graphically described by Maurice Thompson, but never really falling, and never touching the ground. Each performance ended in his reaching the twig which she occupied and her flight to another, until at last, by some apparently mutual agreement, both flew, and I saw no more.

A remarkable "dance" which I also saw, with the same bird as principal actor, seems to me another phase of the wooing, though I must say it resembled a war-dance as well; but love is so like war among the lower orders, even of men, that it is hard to distinguish between them. I shall not try to decide, only to relate, and, I beg to say, without the smallest exaggeration. The dances I saw were strictly *pas-de-deux*, and they

always began by a flash of wings and two birds alighting on the grass, about a foot apart. Both instantly drew themselves up perfectly erect, tail elevated at an angle of forty-five degrees, and wings held straight down at the sides. Then followed a most droll dance. Number one stood like a statue, while number two pranced around, with short, mincing steps and dainty little hops which did not advance him an inch; first he passed down the right, then turned and went down the left, all in the queer, unnatural manner of short hops and steps, and holding himself rigidly erect, while number one always faced the dancer, whichever way he turned. After a few moments of this movement, number one decided to participate, and when his partner moved to the right he did the same; to the left he still accompanied him, always facing, and maintaining the exact distance from him. Then number two described a circle around number one, who turned to face him with short hops where he stood. Next followed a *chassé* of both birds to the right; then a separation, one dancing to the right and the other to the left, always facing, and always slowly and with dignity. This stately minuet they kept up for some time, and appeared so much like a pair of old-fashioned human dancers that when, on one occasion, number two varied the performance by a spring over the head of his partner, I was startled, as if an old gentleman had suddenly hopped over the head of the grand dame his *vis-à-vis*. When this strange new figure was introduced, number one proved equal to the emergency, hopping backward, and turning so dexterously that when his partner alighted they were facing, and

about a foot apart, as before. The object of all this was very uncertain to a looker-on. It might be the approaches of love, and quite as probably the wary beginnings of war, and the next feature of the programme was not explanatory; they rose together in the air ten feet or more, face to face, fluttering and snatching at each other, apparently trying to clinch; succeeding in doing so, they fell to the ground, separated just before they touched it, and flew away. O wings! most maddening to a bird-student.

It was not very long after these performances, which seem to me to belong to the courtship period, when I noticed that my bird had won his bride, and they were busy house-hunting. The place they apparently preferred, and at last fixed upon, was at an unusual height for mockingbirds, near the top of one of the tall pines, and I was no less surprised than pleased to see them lay the foundation of their home in that spot. I congratulated myself that at least one brood in North Carolina would have a chance to come to maturity and be free; and so persistent is the warfare waged against this bird — unfortunately marketable at any stage from the egg — that I almost doubt if another will. The day after they began building a northwest storm set in, and for three days we had high winds and cold weather. In spite of this, the brave birds persevered, and finished their nest during those three days, although much of the time they made infrequent trips. It was really most touching to watch them at their unnatural task, and remember that nothing but the cruelty of man forced them to it (one nest had been destroyed). Their diffi-

culty was to get up against the wind, and, having little experience in flying upward, they made the natural mistake of starting from the foot of their chosen tree. Sometimes, at first, they flew with the body almost perpendicular; and afterwards, when they held the body in proper position, they wished to go so directly up that they turned the head back over the shoulder to see where they were going. The wind, too, beat them far out of their course, and they were obliged to alight and rest, occasionally being forced to cling to the trunk of a tree to recover breath and strength to go on. They never attempted to make the whole ascent at once, but always stopped four or five times, perching on the ends of fallen branches, of which there were eight or ten below the living part of the pine. Even when no wind disturbed them, they made these pauses on the way, and it was always a hard task to reach the top. They learned, after a few days, however, to begin their ascent at a distance, and not approach the tree till at least half as high as they wished to go, which simplified the matter very much. It was beautiful to see them, upon reaching the lowest of the living branches, bound gayly up, as though over a winding stair, to the particular spot they had fixed upon.

During the building I missed the daily music of the singer. Occasionally he alighted on the roof, looked over at me, and bubbled out a few notes, as much as to say, "You must excuse me now; I am very busy"; but all the time I hoped that while sitting was going on I should have him back. I reckoned ignorantly; I did not know my bird. No sooner was he the possessor of a

house and family than he suddenly became very wary. No more solos on the roof; no more confidential remarks; no more familiarities of any sort. Now he must beware of human beings, and even when on the grass he held himself very erect, wings straight down, every instant on guard. His happiness demanded expression in song, certainly, but instead of confining himself to the roof he circled the lawn, which was between two and three hundred feet wide. If he began in a group of cedars on the right, he sang awhile there, then flew to the fence next the road without a pause in the music, and in a few minutes passed to the group of pines at the left, perched on a dead branch, and finished his song there. It was most tantalizing, though I could but admit it a proof of intelligence.

Another change appeared in the bird with the advent of family cares: he was more belligerent; he drove the bluebird off the lawn, he worried the tufted titmouse when it chanced to alight on his tree, and in the most offensive way claimed ownership of pine trees, lawn, and all the fence bordering the same. Neighboring mockingbirds disputed his claim, and many a furious chase took place among the trees. (So universal is their habit of insisting upon exclusive right to certain grounds that two mockingbirds are never found nesting very near each other, in that part of the country. This I was told, and I found it true of those I observed.) These little episodes in his life kept the pine-tree bird from dullness, while his mate was engaged in the top of the tall pine, where, by the way, he went now and then to see how she was getting on. Sometimes his spouse re-

ceived him amiably, but occasionally, I regret to say, I heard a "huff" from the nest that said plainly, "Don't you touch those eggs!" And what was amusing, he acknowledged her right to dictate in the matter, and meekly took his departure. Whenever she came down for a lunch, he saw her instantly, and was ready for a frolic. He dropped to the grass near her, and they usually indulged in a lively romp, chasing each other over and through the trees, across the yard, around the garden, and back to the lawn, where she went on with her eating, and he resumed his singing.

While I was watching the pine-tree household, the other nest, in the top of a low, flat-topped cedar, perhaps twenty-five feet high, and profusely fringed with Spanish moss, became of even more interest. I could not see into the nest, for there was no building high enough to overlook it, but I could see the bird when he stood upon the edge. Sitting, in a warm climate, is not particularly close work. Although the weather was cool, yet when the sun was out the sitter left her nest from six to eight minutes at a time, and as often as once in twenty minutes. Of course in rain she had not so much liberty, and on some days left only when her mate was ready to take her place, which he frequently did.

On the ninth day of my watching (I had not seen the beginning of the sitting), the 3d of May, I found work was over and the youngsters were out. There was much excitement in the cedar tree, but in a quiet way; in fact, the birds became so silent and so wary in approaching the nest that it required the closest watching to see them go or come, and only occasionally could I

detect any food in the beak. I discovered very soon that mockingbird babies are brought up on hygienic principles, and have their meals with great regularity. For some time both parents were exceedingly busy, going and coming almost constantly; then there came a rest of a half-hour or more, during which no food was brought. Each bird had its own way of coming to the tree. Madam came over the roof of the cottage where I sat, and was exposed to view for only a few feet, over which she passed so quickly and silently that I had to be constantly on the alert to see her at all. The singer had another way, and by rising behind a hickory tree beyond the cedar managed to keep a screen of branches between him and myself nearly every foot of the way. I could see them both almost every time, but I could not always tell whether they carried food. Now the bluebird, honest soul, always stops in plain sight to rest, with his mouth full of dainties for his young brood, and a robin will stand staring at one for two minutes with three or four wriggling worms in his beak. It is quite a different affair in the mockingbird family, as is certainly natural, after the persecution it has endured. No special fear of me was the cause, — it is a marked peculiarity of the bird; and I think, with a little study, one could learn to know exactly the moment the eggs hatch by the sudden silence and wariness of both birds. Poor little creatures! a sympathetic friend hates to add to the anxiety they suffer, and he cannot help a feeling of reproach when the brave little head of the family alights on the fence, and looks him straight in the eye, as if to demand why he is subjected to all this annoyance. I had to console

myself by thinking that I was undoubtedly a providence to him; for I am certain that nothing but my watching him so conspicuously that every negro within a mile saw me, saved his family to him, so low and easy of access was the nest.

The day those nestlings were one week old they uttered their first cry. It was not at all a "peep," but a cry, continued a few seconds; at first only when food was offered to them, but, as they increased in age and strength, more frequently. It was much like a high-pitched *ē-ē-ē*, and on the first day there was but one voice, which grew rapidly stronger as the hours went by. The next day another and a weaker cry joined the first, now grown assured and strong. But the music of the father was hushed the moment the youngsters began; from that time until they had left the nest, he sang not a note in my hearing. Perhaps he was too busy, though he never seemed to work so hard as the robin or oriole; but I think it was cautiousness, for the trouble of those parents was painful to witness. They introduced a new sound among their musical notes, a harsh squawk; neither dog nor negro could cross the yard without being saluted with it. As for me, though I was meekness itself, taking the most obscure position I could find, and remaining as absolutely motionless as possible, they eyed me with suspicion; from the first they "huffed" at me, and at this point began to squawk the moment I entered the gate. On one occasion I discovered that by changing my seat I could actually see the nest, which I much desired; so I removed while the birds were absent. Madam was the first to return, with a beakful of food;

she saw me instantly, and was too much excited to dispose of her load. She came to my side of her tree, squawked loudly, flapping her wings and jerking herself about. I remained motionless and did not look at her, pretending to be absorbed in my book; but she refused to be mollified. It evidently did not please her to have me see so plainly; she desired to retain the friendly screen of leaves which had secured her a small measure of privacy. I could not blame her; I felt myself intrusive; and at last I respected her wishes and returned to my old place, when she immediately calmed down and administered the food she had held till then. Poor mother! those were trying times. Her solicitude overpowered her discretion, and her manner proclaimed to every one within hearing that the nestlings were out. Then, too, on the eighth day the little ones added their voices, and soon called loudly enough to attract the dullest of nest-robbers. I was so fearful lest that nest should be disturbed that I scarcely dared to sleep o' nights; the birds themselves were hardly more anxious than I was.

The eleventh day of the birdlings' life was exceedingly warm, without a breath of air stirring, suffocating to humanity, but preëminently inspiring to mockingbirds, and every singer within a mile of me, I am sure, was singing madly, excepting the newly made parent. Upon reaching my usual seat I knew at once, by the louder cry, that a young bird was out of the nest, and after some searching through the tree I found him, — a yellowish-drab little fellow, with very decided wing-markings, a tail perhaps an inch in length, and soft slate-colored spots, so long as almost to be streaks, on the breast. He

was scrambling about the branches, always trying to get a higher place, calling and perking his insignificant tail in true mockingbird fashion. I think the parents disapproved this early ambition, for they did not feed him for a long time, though they passed him to go to the nest. So far from being lightened, their cares were greatly increased by the precociousness of the youngster, and from this moment their trouble and worry were grievous to see. So much self-reliance has the mockingbird, even in the nest, that he cannot be kept there until his legs are strong enough to bear his weight, or his wings ready to fly. The full-grown spirit of the race blossoms out in the young one at eleven days, and for several more he is exposed to so many dangers that I wonder there is one left in the State.

The parents, one after the other, came down on to a bush near my seat to remonstrate with me; and I must admit that so great was my sympathy, and so uncomfortable did I feel at adding in the least to their anxiety, that I should never have seen that young family fledged, only that I knew perfectly well what they did not, that I was a protection to them. I tried to reassure the mother by addressing her in her own language (as it were), and she turned quickly, looked, listened, and returned to her tree, quieted. This sound is a low whistling through the teeth, which readily soothes cage-birds. It interests and calms them, though I have no notion what it means to them, for I am speaking an unknown tongue.

The baby on the tree was not quiet, climbing about the branches every moment that he was not engaged in

dressing his feathers, the first and most important business of the newly emancipated nestling. After an hour or more of watching there was a sudden stir in the family, and the youngster made his appearance on the ground. He was not under the side of the tree on which he had been resting, so, although I did not see the passage, I knew he had not fallen, as he is popularly said to do, but flown as well as he was able. I started slowly down the yard to examine the little stranger, but was absolutely startled by a cry from the mother, that sounded exactly like "Go 'way!" as I have often heard a negro girl say it. Later it was very familiar, a yearning, anxious, heartaching sound to hear.

The youth was very lively, starting off at once on his travels, never for an instant doubting his own powers. I saw his first movement, which was a hop, and, what surprised and delighted me, accompanied by a peculiar lifting of the wings, of which I shall have more to say. He quickly hopped through the thin grass till he reached a fence, passed down beside it till a break in the pickets left an open place on the bottom board, sprang without hesitation upon that, and after a moment's survey of the country beyond dropped down on the farther side. Now that was a lane much frequented by negroes, and, being alarmed for his safety, I sent a boy after him, and in a moment had him in my hand. He was a beautiful little creature, having a head covered with downy dark feathers, and soft black eyes, which regarded me with interest, but not at all with fear. All this time, of course, the parents were scolding and crying, and I held him only long enough to look carefully at him, when I re-

placed him on the grass. Off he started at once, directly west, — like the “march of empire,” — went through the same fence again, but further down, and, as I could tell by the conduct of the parents, in a few moments was safely through a second fence into a comparatively retired old garden beyond, where I hoped he would be unmolested. Thus departed number one, with energy and curiosity, to investigate a brand-new world, fearless in his ignorance and self-confidence, although his entrance into the world had not been the triumphant fly we might look for, but an ignominious “flop,” and was irresistibly and ludicrously suggestive of the manner of exit from the home nest of sundry individuals of our own race, which we consider of much greater importance.

The young traveler set out at exactly ten o'clock. As soon as he was out of sight, though not out of hearing, — for the youngster as well as the parents kept the whole world of boys and cats well informed of his whereabouts for three days, — I returned and gave my attention to number two, who was now out upon the native tree. This one was much more quiet than his predecessor. He did not cry, but occasionally uttered a mockingbird squawk, though spending most of his time dressing his plumage, in preparation for the grand *entrée*. At twelve o'clock he made the plunge, and came to the ground in a heap. This was plainly a bird of different disposition from number one; his first journey evidently tired him. He found the world hard and disappointing, so he simply stayed where he dropped in the middle of the path, and refused to move, though I touched him as a

gentle reminder of the duty he owed to his parents and his family. He sat crouched upon the gravel and looked at me with calm black eye, showing no fear and certainly no intention of moving, even indulging in a nap while I waited.

Now appeared upon the scene several persons, both white and black, each of whom wanted a young mockingbird for a cage; but I stood over him like a god-parent and refused to let any one touch him. I began to fear that I should have him on my hands at last, for even the parents seemed to appreciate his characteristics and to know that he could not be hurried, and both were still busy following the vagaries of number one. The mother now and then returned to look after him and was greatly disturbed by his unnatural conduct — and so was I. He appeared stupid, as if he had come out too soon, and did not even know how to hop. It was twenty minutes by the watch before he moved. His mother's calls at last aroused him; he raised himself upon his shaky little legs, cried out, and started off exactly as number one had done, — westward, hopping, and lifting his wings at every step. Then I saw by the enormous amount of white on his wings that he was a singer. He went as far as the fence, and there he paused again. In vain did the mother come and scold; in vain did I try to push him along. He simply knew his own will, and meant to have it; the world might be strange, but he was not in the least interested. He rested in that spot fifteen or twenty minutes more, while I stood guard as before, and preserved him from cages of both negroes and whites. At last he did manage to squeeze through

the fence, and, much relieved, I left him to the old birds, one of whom was down in the lot beyond the garden, no doubt following up his ambitious first-born.

Whoever, meanwhile, was left in the nest had a poor chance of food, and one was already crying. It was not until six o'clock that the birds seemed to remember the nestling; then it was well fed, and left again. Nothing would be easier than to follow the wandering youngsters, see how they got on and how soon they were able to fly, but this so disturbed the parents I had not the heart to do it; and besides I feared they would starve the infants, for one was never fed while I was near. Doubtless their experience of the human race forbade their confiding in the kindly intentions of any one. It was well that only two of the young appeared in one day, for keeping track of them was so serious a matter that two parents could scarcely manage it.

Number three differed from both of his elders; he was a cry-baby. He was not bright and lively like number one, and he did not squawk like number two, but he cried constantly, and at six P.M. I left him calling and crying at the top of his voice. Very early the next morning I hastened to the scene of yesterday's excitement. Number three was out on the tree. I could hear number two still crying and squawking in the garden, and from the position and labors of the male I concluded that number one was in the next lot. It was a dismal, damp morning, every grass-blade loaded with water, and a heavy fog driving in from the sea. I hoped number three would know enough to stay at home, but his fate was upon him, and no rain was ever wet enough to

overcome destiny. At about eight o'clock he stretched his little wings and flew to the ground, — a very good flight for his family, nearly thirty feet, twice as far as either of his predecessors had gone; silently, too, — no fuss about it. He began at once the baby mocker's hop with lifted wings, headed for the west fence, jumped upon the lower board, squeezed through and was off down the garden before the usual crowd of spectators had collected to strive for his head. I was delighted. The parents, who were not near when he flew, came back soon and found him at once. I left him to them and returned to my place.

But silence seemed to have fallen upon the cedar, late so full of life. In vain I listened for another cry; in vain I watched for another visit from the parents. All were busy in the garden and lot, and if any baby were in that nest it must surely starve. Occasionally a bird came back, hunted a little over the old ground in the yard, perched a moment on the fence, and saluted me with a low squawk, but their interest in the place was plainly over.

After two hours I concluded the nest was empty; and a curious performance of the head of the late family convinced me it was so. He came quite near to me, perched on a bush in the yard, fixed his eyes on me, and then, with great deliberation, first huffed, then squawked, then sang a little, then flew. I do not know what the bird meant to say, but this is what it expressed to me: "You've worried us all through this trying time, but you did n't get one of our babies! Hurrah!"

In the afternoon I had the nest brought down to me.

For foundation it had a mass of small twigs from six to eight inches long, crooked and forked and straight, which were so slightly held together that they could only be handled by lifting with both hands, and placing at once in a cloth, where they were carefully tied in. Within this mass of twigs was the nest proper, thick and roughly constructed, three and a half inches in inside diameter, made of string, rags, newspaper, cotton wadding, bark, Spanish moss, and feathers, lined with fine fibre, I think. The feathers were not inside for lining, but outside on the upper edge. It was, like the foundation, so frail that, though carefully managed, it could only be kept in shape by a string around it, even after the mass of twigs had been removed. I have a last year's nest, made of exactly the same materials, but in a much more substantial manner; so perhaps the cedar-tree birds were not so skillful builders as some of their family.

The mockingbird's movements, excepting in flight, are the perfection of grace; not even the catbird can rival him in airy lightness, in easy elegance of motion. In alighting on a fence, he does not merely come down upon it; his manner is fairly poetical. He flies a little too high, drops like a feather, touches the perch lightly with his feet, balances and tosses upward his tail, often quickly running over the tips of half a dozen pickets before he rests. Passing across the yard, he turns not to avoid a taller tree or shrub, nor does he go through it; he simply bounds over, almost touching it, as if for pure sport. In the matter of bounds the mocker is without a peer. The upward spring while singing is

an ecstatic action that must be seen to be appreciated; he rises into the air as though too happy to remain on earth, and opening his wings, floats down, singing all the while. It is indescribable, but enchanting to see. In courtship, too, as related, he makes effective use of this exquisite movement. In simple food-hunting on the ground, — a most prosaic occupation, truly, — on approaching a hummock of grass he bounds over it instead of going around. In alighting on a tree he does not pounce upon the twig he has selected, but upon a lower one, and passes quickly up through the branches, as lithe as a serpent. So fond is he of this exercise that one which I watched amused himself half an hour at a time in a pile of brush; starting from the ground, slipping easily through up to the top, standing there a moment, then flying back and repeating the performance. Should the goal of his journey be a fence-picket, he alights on the beam which supports it, and hops gracefully to the top.

Like the robin, the mockingbird seeks his food from the earth, sometimes digging it, but oftener picking it up. His manner on the ground is much like the robin's; he lowers the head, runs a few steps rapidly, then erects himself very straight for a moment. But he adds to this familiar performance a peculiar and beautiful movement, the object of which I have been unable to discover. At the end of a run he lifts his wings, opening them wide, displaying their whole breadth, which makes him look like a gigantic butterfly, then instantly lowers his head and runs again, generally picking up something as he stops. A correspondent in South Carolina, familiar

with the ways of the bird, suggests that his object is to startle the grasshoppers, or, as he expresses it, to "flush his game." I watched very closely and could not fix upon any theory more plausible, though it seemed to be weakened by the fact that the nestlings, as mentioned above, did the same thing before they thought of looking for food. The custom is not invariable; sometimes it is done, and sometimes not.

The mockingbird cannot be said to possess a gentle disposition, especially during the time of nesting. He does not seem malicious, but rather mischievous, and his actions resemble the naughty though not wicked pranks of an active child. At that time he does, it must be admitted, lay claim to a rather large territory, considering his size, and enforces his rights with many a hot chase and noisy dispute, as remarked above. Any mockingbird who dares to flirt a feather over the border of the ground he chooses to consider his own has to battle with him. A quarrel is a curious operation, usually a chase, and the war-cry is so peculiar and apparently so incongruous that it is fairly laughable. It is a rough breathing, like the "huff" of an angry cat, and a serious dispute between the birds reminds one of nothing but a disagreement in the feline family. If the stranger does not take the hint, and retire at the first huff, he is chased, over and under trees and through branches, so violently that leaves rustle and twigs are thrust aside, as long as the patience or wind holds out. On one occasion the defender of his homestead kept up a lively singing all through the furious flight, which lasted six or eight minutes, — a remarkable thing.

To others than his own kind the mocker seems usually indifferent, with the single exception of the crow. So long as this bird kept over the salt marsh, or flew quite high, or even held his mouth shut, he was not noticed; but let him fly low over the lawn, and above all let him "caw," and the hot-headed owner of the place was upon him. He did not seem to have any special plan of attack, like the kingbird or the oriole; his aim appeared to be merely to worry the enemy, and in this he was untiring, flying madly and without pause around a perching crow until he took flight, and then attempting to rise above him. In this he was not always successful, not being particularly expert on the wing, though I have two or three times seen the smaller bird actually rest on the back of the foe for three or four seconds at a time.

The song of the free mockingbird! With it ringing in my ear at this moment, after having feasted upon it and gloried in it day and night for many weeks, how can I criticise it! How can I do otherwise than fall into rhapsody, as does almost every one who knows it and delights in it, as I do! It is something for which one might pine and long, as the Switzer for the Ranz-des-Vaches, and the more one hears it the more he loves it. I think there will never come a May in my life when I shall not long to fold my tent and take up my abode in the home of the mockingbird, and yet I cannot say what many do. For variety, glibness, and execution the song is marvelous. It is a brilliant, bewildering exhibition, and one listens in a sort of ecstasy almost equal to the bird's own, for this, it seems to me, is the secret of the power of his music: he so enjoys it himself, he throws his whole

soul into it, and he is so magnetic that he charms a listener into belief that nothing can be like it. His manner also lends enchantment; he is seldom still. If he begins in a cedar-tree, he soon flies to the fence, singing as he goes, thence takes his way to a roof, and so on, changing his place every few minutes, but never losing a note. His favorite perch is the top spire of a pointed tree, low cedar or young pine, where he can bound into the air as already described, spread his wings, and float down, never omitting a quaver. It seems like pure ecstasy; and however critical one may be, he cannot help feeling deep sympathy with the joyous soul that thus expresses itself. With all the wonderful power and variety, the bewitching charm, there is not the "feeling," the heavenly melody, of the wood thrush. As an imitator, I think he is much overrated. I cannot agree with Lanier that

"Whate'er birds did or dreamed, this bird could say";

and that the birds are jealous of his song, as Wilson says, seems absurd. On the contrary, I do not think they recognize the counterfeit. The tufted titmouse called as loudly and constantly all day as though no mockingbird shouted his peculiar and easily imitated call from the house-top; the cardinal grosbeak sang every day in the grove, though the mocker copied him more closely than any other bird. He repeats the notes, rattles out the call, but he cannot put the cardinal's soul into them. The song of every bird seems to me the expression of himself; it is a perfect whole of its kind, given with proper inflections and pauses, and never hurried; whereas, when the mocker delivers it, it is simply one

more note added to his repertory, uttered in his rapid staccato, in his loud, clear voice, interpolated between incongruous sounds, without expression, and lacking in every way the beauty and attraction of the original.

The song consists entirely of short staccato phrases, each phrase repeated several times, perhaps twice, possibly five or six times. If he has a list of twenty or thirty, — and I think he has more, — he can make almost unlimited changes and variety, and can sing for two hours or longer, holding his listener spellbound and almost without consciousness that he has repeated anything.

So winning and so lasting is the charm with which this bird entralls his lovers that scarcely had I left his enchanted neighborhood before everything else was forgotten, and there remain of that idyllic month only beautiful pictures and delightful memories.

“O thou heavenly bird!”

ON THE COAST OF MAINE

ON an outlying island on the lonely — but lovely — coast of Maine some of the happiest summers of my life have been passed, hours slipping into days, and days running on into weeks, almost unheeded, while

“Dreaming sweet idle dreams of having strayed
To Arcady with all its golden lore”; —

not, however, in studying the human life of its storm-beaten cottages, interesting as that may be, but in watching life’s tragedies and comedies among our little neighbors of the fields and woods — the dramas of the tree-tops.

My abiding-place at the time my story begins differed materially from the picturesque “small gray house facing the morning light,” being a modern structure which offered the rare combination of a comfortable home in the edge of an undisturbed forest, completely secluded from roads and their traffic, yet within two minutes’ reach of the common way to the village. The outlook from my window was into the tops of tall spruces and firs, relieved here and there by a pine, a birch, or a maple. Through a vista, and over the tops of more distant trees, could be seen the broad Atlantic Ocean, and above all

“The blue arch of sky
Where clouds go sailing by.”

The feathered neighbors had evidently accepted the house as a part of the woods, for they came freely about, delighting especially in a worn and battered old spruce within fifteen feet of the window. On this tree, — which doubtless furnished a choice assortment of bird dainties, — first or last, appeared all the birds of the vicinity.

As usual, the bird-life possessed a character of its own, and it impressed me as a particularly refined neighborhood. No vulgar, squawking English sparrow disturbed its peace, no chippies squabbled in the grass, no tireless red-eyed vireo fretted the air with its endless iteration, and — what was not half so pleasing — no catbirds, orioles, bluebirds, goldfinches, or flycatchers could be numbered among the residents.

Juncoes and chickadees scrambled and frolicked over the old spruce, white-throated sparrows — the aristocrats of the family — chanted their solemn hymn from the underbrush one side; thrushes sang and called from the tall trees at the back, and it was above all the resort of warblers, the chosen home of these dainty small birds.

I had spent one summer in this retreat, and on arriving there the next time I anticipated no more than renewed acquaintance with my old neighbors. But a rare surprise awaited me. Others of the feathered tribes had discovered the charms of the spot, and were in possession when I reached it.

At dawn the first morning, listening as usual for the familiar songs of the morning, the recitative of the olive-back, the far-off hymn of the hermit, and the hearty little strains of the miscalled warblers, suddenly the air

seemed filled with strange sounds. They appeared to come from all points at once, most of them sharp "pip! pip's!" like the cry of a lost chicken, with others, indescribable and most confusing, and all loud, emphatic, and utterly strange to me.

Here was an extraordinary visitation! I sprang up and rushed to the window. There they were, the whole jolly crowd, on a tall balsam fir close by, a dozen or more, scrambling about the branches with a thousand antics and shouts of glee.

Such a merry party I never saw. The greater number wore dresses of olive-green, but some in dull red gave me a hint of their identity, and the crossed bills of all confirmed it. They were crossbills, whose strange utterances Longfellow felicitously characterizes as

"Songs like legends strange to hear."

This was treasure-trove indeed, for crossbills are the most erratic of the feathered race in our part of the world, the Bohemians of the bird-world and the despair of the systematist. Wandering about at their own sweet will; having no fixed home that is known, and no stated dates for traveling; coming no one knows whence, and going no one knows whither; one season making glad the bird-student in one place and the next driving him to despair by their absence, they totally defy classification and exasperate the classifier.

The opinions of man did not, however, dampen the boisterous spirits of my new neighbors, to whom I gave my days and almost my nights from that moment. They were the most joyous of feathered creatures, noisy and

talkative, clambering over the trees like a party of parrots, all chattering at once, voluble as a flock of chimney swifts, or a squad of school-children just released, and then suddenly — on a loud call from one of their number — starting off, bounding over the tree-tops in a sort of mad frenzy, all shouting at the top of their voices, leaving the baffled student to guess what it all meant.

A mysterious performance of these birds was a sort of medley. It was executed by a small flock settled together in one tree, all uttering the call which I have called the “lost-chicken” note, with utmost apparent agitation, and each individual in a different key, thus producing a strange, weird effect.

The crossbills were the most restless, as well as the most noisy of birds, appearing before my window a dozen times a day, sometimes staying but a few minutes, sometimes perhaps half an hour, biting off the cones, holding them under one foot, and extracting the seeds in eager haste as if they had but a minute to stay, and something terrible or important was about to take place.

The morning song to which they treated me about four o’clock was most droll. As nearly as it can be represented by syllables, it was like this: —

“Pip! pip! pip! [many times] pap! pap! pap! [many times] kid-dr-r-r-! kid-dr-r-r! [with rolling r] qu! qu! pt! pt! pt — e!” and so on in various combinations, all in labored manner, as if it were hard work.

This party were in all stages of plumage, for it appears that in spite of their vagaries, they are obliged to conform to the ordinary bird-habit in moulting. The

young still calling for food — and getting it as I saw once or twice — in their peculiar youthful dress, the mothers of the flock in their usual olive-green, and the singers in all shades of red, from one mottled all over red and olive, to the full-dressed and brilliant personage of clear red with dark trimmings.

The most charming exhibition of crossbill eccentricities that I heard was a whisper-song. The bird came alone to the old spruce before my windows, and settled himself on a dead branch in the middle of the tree, where he was hidden from everybody except the spectator behind the blind, of whom he had no suspicion. In a moment he began a genuine whisper-song so low that I could scarcely hear it, near as I was and perfectly silent. He poured forth the whole crossbill repertoire, — all the various utterances I had heard during the weeks I had been studying them, — and all under his breath, with beak nearly closed. Thus softly rendered it was really charming. This enchanting exhibition of crossbill possibilities lasted fully fifteen minutes.

A favorite walk that summer was down to the shore, through a rustic road and a beautiful grove of very tall trees, which differed from every other bit of woods in the vicinity in having no undergrowth whatever. Sundry outcropping rocks and roadside banks made convenient seats for resting-places, and down this road I passed nearly every day.

One evening while lingering upon one of the rocky seats, as was my habit, I was startled by a new song, a wonderful, trilling strain, entirely unfamiliar to me, though I thought I knew all the birds of the vicinity.

I started up, eager to see the singer, but the most careful search was fruitless. By the sound I knew that the bird moved about, but I could not get a glimpse of him, and I went home greatly disturbed.

Although the voice of the unknown was of a different quality, the song resembled that of a canary in being long-continued, not in short clauses like a robin song. There were long bewitching tremolos varied by a rapturous "sweet! sweet!" and now and then a slurred couplet of thrilling effect, or a long-drawn single note of rich musical quality, or again a rapid succession of sharp staccato notes. Altogether it was enchanting, and it put me into a frenzy of excitement. What marvelous singer was this who had escaped the notoriety of the books! for I could find not the smallest record of this song.

After a night of puzzling and consulting of books I started again down the shore-road immediately after breakfast. I could not wait till the usual hour. The mysterious singer was still there; but after trying in vain to see him in the top branches of the tall old trees, which grew together and formed a close roof over the whole grove, I was forced to give it up and go home in despair.

I tried to comfort myself with the wise man's prophecy of the advantage of waiting, and at last his wisdom was proved. Sitting disconsolate on the piazza where I had paused a few minutes before going to my room, suddenly the song burst out close by. It was as if the long-sought singer had followed me home. Almost holding my breath, not to startle him, I crept softly to the end

where I could see into the woods, and behold, at the top of the tall pointed fir, beloved of all the birds for a singing-stand — a crossbill, reeling off the trills and quavers with the greatest ease and enthusiasm. While he sang, a second came and the first one flew, trilling as he went. I saw both of them clearly, and the white on the wings proclaimed them white-winged crossbills, closely related to the American crossbills I had been studying.

The song was so ecstatic it seemed it must belong to courtship days, yet it was then near the end of July, another eccentricity of the family. It could not be doubted that it was an overflowing flood of joy, — a joy which overwhelmed the listener, spell-bound as long as it lasted. Yet the most the books say of this remarkable performance is “the white-winged is said to be a fine singer” (or words to that effect).

After that morning the white-wings came about frequently, mixing freely with the others, and I learned to know them well. Not only did they differ from their American cousins in song, but in every note they uttered, even in the tone of voice. The call-note was a plaintive “peet! peet!” resembling that of the sandpiper, —

“Calling clear and sweet from cove to cove”; —

and like all other birds that I have studied, there was great variety and many degrees of excellence in their songs.

The habits of the white-wings were in general the same as those of the American, but they indulged in one eccentricity I could never explain. They paid mysteri-

ous visits to the shore, going down in little parties far out of my sight among the rocks, and staying a half hour at a time. There was no beach on which food might be found, and they did not select low tide for the excursions. Neither did it seem to be bathing which attracted them, for there was never any appearance of dressing plumage, and when I started them up in my efforts to see what they were doing they were always ready to fly, and never one was in the water or appeared to have been bathing.

Another favorite retreat of that July was a nook near the house, yet apparently undiscovered by people, and as secluded as if it had been miles away. It was merely a hollow like a little valley among the rocks, perhaps ten feet in extent, inclosed and sheltered by close-growing spruce and maple trees, and exquisitely carpeted with thick light-green moss mixed with several varieties of dark moss. On this as a foundation were beautiful growing things, bunchberry, now gorgeous in clustered scarlet berries sitting on their four green leaves like queens on a throne; blueberry bushes which had attained only four or five inches in height, but bravely held aloft their tiny blossoms, promise of rich blue fruit; wintergreens with tender green leaves; in one corner a patch of partridge-berry vines loaded with lovely, fragrant bloom, and, not the least attractive, some fine grasses, graceful, airy things, beautiful as flowers, holding their minute seed-cups like purple gems shining in the morning sun.

Other growths there were of different shapes and colors to me unknown, but all looked so peaceful, so

happy, each little plant coming up out of the ground where Nature had placed it, doing its little best in the spot, making itself as lovely as possible, putting out its perfect blossoms and never dreaming of being discontented with its lot. It was a bit of fairyland. One could easily imagine the "little people" at home in such a nook, and it held a salutary lesson, too, for restless and dissatisfied mortals, if one had eyes to see.

In this nook were passed many perfect morning hours, when, though not a breath stirred the leaves, it was delightfully cool and fresh, as if the whole earth were newly created. Not a soul was in sight, the whole green world was mine alone. I felt myself "akin to everything that grows," — akin to the dear birds shouting their morning hymns, to the dear "man-bodied trees," to the contented little plants, — I realized how truly we are all one, down to the grass under our heedless feet.

One morning I was passing through an unfrequented path in the woods, when, hearing crossbill song quite near, I looked about for the singers. There on one side, in a little pool left by a recent rain, were two of the family at their bath, singing as usual. For these birds are so full of joy they sing when they eat, when they play, when they watch me, and, as I now saw, when they bathe. They were plainly the young of the year, and, since they did not notice me, I had a close look at them. They were streaked all over on back and breast with fine streaks of dark brown on a yellowish-drab ground, the broad white bands on the wings proclaiming their identity.

Crossbills continued to sing till August was nearly over.

Into these halcyon days on that Island on the Coast of Maine burst August, and the "summer crowd." The two or three hotels, empty heretofore and unobtrusive, blossomed out with human life; fancy "turnouts" raised clouds of dust on my evening walk; baby-carriages with attendant white-capped genii desecrated my favorite wood; bicycle-bells haunted the solitary footpath; boys swarmed on the sandpiper shore; lonely byways became common thoroughfares; flowers were ruthlessly destroyed; bird-voices were lost amid the din with which we surround ourselves. The woods seemed to shrink into themselves. The birds retired to fastnesses where human feet could not follow. Solitude was banished, and everywhere were curious, staring eyes. Man, the destroyer, had taken possession, and it was time for the solitude-loving bird-student to take her departure, for this intrusion of the bustling world effectually

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